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EDITORIAL FOREWORD

This issue of JURA is remarkably consistent in its themes, namely how to manage urban expansion or renewal and processes of economic development, particularly in Asian cities.

The countries concerned, namely Indonesia, Japan, Korea, Russia and the Czech Republic have limited exposure in the English-speaking world, but the issues they confront and their approaches to both analysis and policies will resonate with that audience. Indonesia, with its high and sustained rate of GDP growth, is unsurprisingly encountering massive but economically uneven urban expansion.

Pamungkas, for example, raises an important world-wide theme about how delineation of appropriate urban governance boundaries can improve infrastructure supply and help reduce economic development disparities within city regions such as Tanjung Pinang, his case study area.

Giyarsih and Marfai focus on a closely related theme, which concerns the differential rate of urban expansion and renewal in Semarang City, noting that investment in public infrastructure plays a key role, while appreciating greater development constraints in older and densely settled urban cores.

This latter issue is taken up by Seong-Kyu and KI-Hyun, whose article examines the redevelop-ment, and indeed gentrification, of Seoul's inner areas as government grapples with an urgent need for increased supply of affordable housing. Besides, as in many other parts of the world, Seoul has encountered inner area gentrification which tends to benefit upwardly mobile then highly skilled younger people.

Novosak, Hajek, Novosakova and Lindner examine another predominant theme in urban analysis, this time in the Czech Republic. Many parts of Europe, especially in the EU's most recent accession nations, face major problems of regional economic inequality and how best to promote the development of less well-off regions. But they find that government managed structural funds frequently advantage areas with strong agglomeration economies and entrepreneurial cultures rather than disadvantaged peripheries.

This neatly brings us to Gurova's analysis of urban development in Russia's Trans-Baikal territory. Although bordering on some of Asia's rapidly urbanising and high GDP growth regions, many of the cities in Trans-Baikal are grappling with population decline as many industries developed during the Soviet era struggle to survive in a market economy or under new technologies. Finally, we turn to Japan where rapid economic development and urbanisation spanning the last half century has clashed with innate Japanese cultural preference to maintain high quality rural landscapes.

Shimamoto focuses on optimal strategies for developing enforceable landscape agreements to which all parties adhere using an interesting cooperative game theory approach. We are sure that these contributions will provide much food for thought among JURA's loyal readers.

Professor Anthony **SORENSEN** and *Professor* Michael **SOFER**
Guest Editors

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REARRANGEMENT OF ADMINISTRATIVE BOUNDARIES FOR REDUCING INNER-CITY DISPARITY: CASE STUDY OF TANJUNG PINANG CITY, INDONESIA

Adjie **PAMUNGKAS**
ITS Surabaya, Indonesia

Abstract: An imbalance in development between islands in Tanjung Pinang City causes inner-city disparities due to insufficient development strategies, lack of public infrastructure and remoteness of islands. On the other hand, properly designed administrative boundaries can reduce inner-city disparities by enabling good development strategies, prioritizing public infrastructure development, and connecting the entire area, including remoter islands. This paper discusses how to re-arrange administrative boundaries, particularly at the district and sub-district levels in order to decrease inner-city disparities. A combination method of scoring and participatory mapping is used to suggest new district delineation for the city. After considering the outputs of scoring and participatory mapping, the district boundaries were changed from four to eight and then back to six districts. The paper also proposes key development strategies to boost development in poorer districts by improving the allocation of new infrastructure investment so as to optimize the impact of new municipal and provincial government statuses bestowed on the Dompak and Senggarang Districts. In addition, we suggest that development strategies should provide adequate infrastructure to connect remoter islands in the Penyengat Sub-district to the main island.

Key Words: *islands development, inner-city disparities, administrative boundaries, infrastructure investments*.

Introduction

By the nature, the development should achieve three main goals that are life sustenance, self-esteem and freedom of choices (Todaro 1981). In achieving these goals, many development theories have been formulated including the growth pole theory (Perrox 1950 in Dawkins 2003, Glasson 1974). The growth pole theory is a response to the central place theory of Christaller in 1933 and Losch in 1954 (Dawkins 2003). The theory is basically about concentrating the economic growth in a certain place. Agglomeration factors leading to efficiency causes the growth poles concept to become a promising concept for development. The growth pole concepts then dominated the development processes in developing and developed countries since 1970s (Miyoshi 1997). It also includes Indonesia by concentrating the development process in the capital cities.

In fact, the growth pole theory brings imbalance development (Richardson and Richardson 1975). The imbalance development can be considered as regional disparity and, in this context, we consider it as inner-city disparity. Within the theory, backwash effect and trickling down effect (or spread effect) are the key factors for the successes of development goals via the growth pole theory (Myrdal 1957). Unfortunately, the backwash effect was stronger than the trickling down (spread) effect in many cases, including Indonesia, resulting in a wider gap of inner-city disparity since the new order era of Soeharto. Firdaus (2017) indicates a high coefficient of variation (CV – 0.93) in Indonesia, indicating a significant regional disparity. He also adds that the gap is getting wider if we compared the GDP data between 1983 and 2013 (Firdaus 2017).

Since the imbalance development significantly arises in many cases, including Indonesia, critiques on the growth pole theory have been discussed widely. Polycentric Urban Region (PUR), which is based on the network system, is one of the theories responding to the failure of growth pole theory, which is based on the central place theory (Batten 1995, Bailey and Turok 2001, Meijers et al. 2003). Batten (1995) also adds that the concept is trying to duplicate many 'poles' in a region. The connected poles idea is also a strength in this concept for regional development (Bailey and Turok 2001). For the Indonesian context, the new municipalities and provinces is part of developing the underdeveloped area strategy. The new administrative areas with their capital cities increase the number of growth poles in Indonesia. Ones of the newest administrative boundaries are Riau Island Province and Tanjung Pinang City. Those new capital cities can potential become the new poles while forming the network system in Indonesia. Especially in the Tanjung Pinang City context, the idea to multiply the current poles in the surrounding areas is continued by proposing a new district delineation with a more number of districts compared to the existing ones. The increasing number of poles is believed to improve development in underdeveloped areas as well as to decrease inner-disparity in the municipalities.

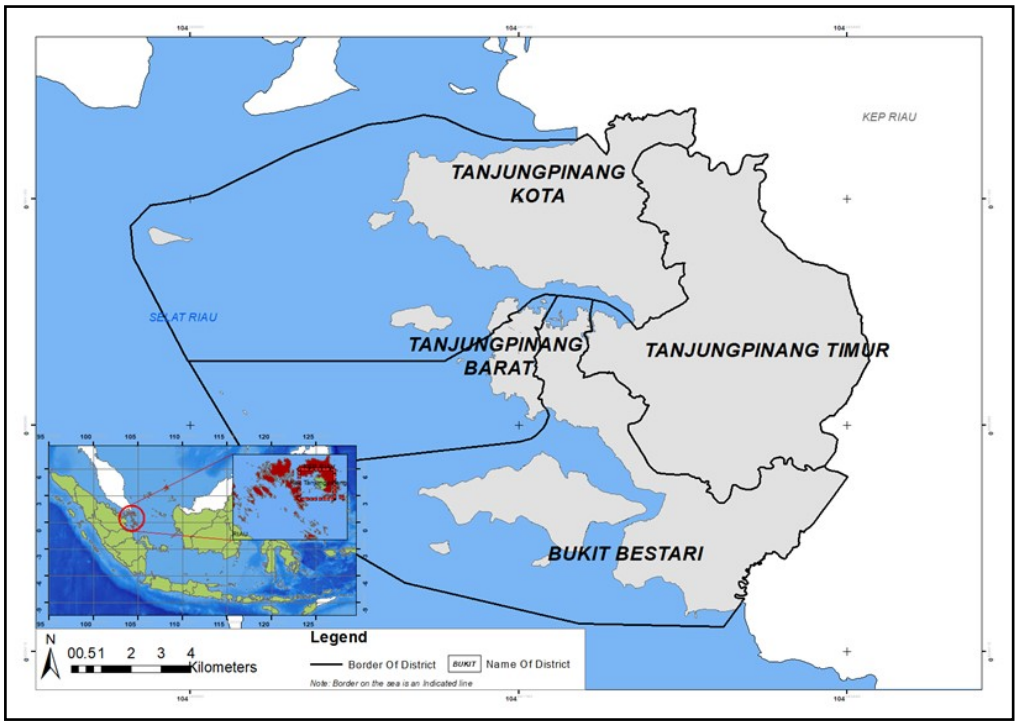


Fig.1 - **Tanjung Pinang City orientation**
Source: 1. Quickbird imagery for Tanjung Pinang City in 2008; 2. Goverment Regulation No.19/2008, on District; 3. Proposal for district division 2010, Tanjung Pinang City.

Tanjung Pinang City is the capital of Indonesia's Riau Islands Province, and it was granted the city status on June 21, 2001 (Kemendagri 2013). The Province is also one of the newest in Indonesia, established on October 25, 2002 (Kemendagri 2013). Located on the main island of Bintan at 1°5′0″N 104°29′0″E, the city comprises four main districts: Tanjung Pinang Kota,

Tanjung Pinang Barat, Tanjung Pinang Timur, and Bukit Bestari. It further comprises 18 sub-districts, it covers 239.5 km^2, it has 203 153 inhabitants (in 2014), and the Indonesian Statistical Bureau (2015) assesses a low level of development. Figure 1 shows the location of Tanjung Pinang City in the Indonesian Archipelago and in relation to the main islands of Riau Island Province. It also illustrates the current division of districts in Tanjung Pinang City.

Fig. 2 - **Tanjung Pinang City: A. Fisherman housing, B. Main seaport, C. Traditional market, D. Modern market, E. Densely populated housing, F. New provincial government complex**

An increasing focus on coastal and marine development has directed the special attention of the government on Tanjung Pinang City as part of the islands province. The city exhibits a low level of development. Based on its statistical agency in 2015, it has a low population density (884.32 people/km^2); a limited number and range of city facilities such as banks, traditional non -banking facilities, shops, traditional markets, community houses, elementary, junior and senior school buildings and community health centres; a low total gross domestic product (Indonesian Rupiah – IDR 16.29 billion or USD 1.2 million), a low income per capita (IDR 14.45 million or USD 1 089 annually) relative to Indonesia's averages, and the existence of many non-permanent houses. Figure 2 provides some images of Tanjung Pinang City's facilities.

The city has also experienced unbalanced development resulting in growth disparities among its districts and sub-districts. It has been argued that low regional disparities, in our case inner-city disparities, indicate a sustainable development within a region (Zuindeau 2007, Salvati et al. 2016, Yang et al. 2016). Yang et al. (2016) also add that properly designed investment can reduce regional disparities. One of the instruments to accelerate urban or economic development is the investment in infrastructure (Giang and Pheng 2011, Zeng et al. 2015, Berger and Enflo 2017), and concentrating such investment in underdeveloped city districts could potentially reduce the gap between these and the more prosperous districts. Therefore, infrastructure facilities can reflect development outputs as well as inner-city disparities. Most of these indicators reveal that sub-districts on small islands are trailing those on the main island of Tanjung Pinang City. Even there, most facilities are located mainly in three sub-districts, namely Tanjung Pinang Kota, Kemboja and Kampung Bulang. The other 15 sub-districts have poor facilities indicating the city's problem of intra-regional disparities.

To intensify the development process and distribute the outcomes more evenly, strategies should be well designed. One of the development strategies in the Tanjung Pinang City regional spatial plan (2010-2030) is to improve the activity centers in certain service areas in a functional, hierarchical and integrated manner. Activity centers, which are the focus of public service facilities, commercial activity, industrial areas and transport infrastructure, can generate strong multiplier effects for their surrounding hinterlands. They occur in both districts and sub-districts, which are the lowest levels of government administration, and significantly influence the delivery of development in Indonesia. Careful administrative boundary delineation may create a more efficient development process and increase the impacts of development in a sustainable way (Gruby and Basurto 2013, Gaigné et al. 2016). In the long term, the arrangement of administrative boundaries is therefore one of the main factors that may accelerate a sustained economic performance (Andersson et al. 2014, Kan 2016) as well as reduce inner-city disparities. This paper proposes a strategy to determine the optimal administrative boundaries designed to achieve a balanced growth in Tanjung Pinang City. It will also elaborate key development strategies following the new arrangement of administrative boundaries at district and sub-district levels.

Methodology

We employed an innovative mixed method approach to delineate an appropriate pattern of districts and sub-districts for the delivery of government services to aid development. This approach integrated both quantitative and qualitative analyses to increase the credibility of the research. The two main sources of information were:

Table 1

Indicators and Variables for Scoring the District Performance

Indicators	Variables	Weight
Population	Population size	20
Size of areas	Overall area size	5
	Effective area size – populated area	5
Controlling spectrum	Average distance between the populated areas and the district center	10
	Average travel time	10
Economic Activity	Number of banks	2
	Number of non-bank finance organizations	2
	Number of shops	2
	Number of markets	4
Availability of Infrastructure	Ratio of elementary graduates to total population	4
	Ratio of junior high school graduates to total population	4
	Ratio of senior high school graduates to total population	4
	Ratio of health facilities	4
	Ratio of medical workers	4
	Ratio of households with vehicles	3
	Percentage of households with electricity	3
	Ratio of length of road to number of vehicles	3
	Ratio of number of faith centers to population size	4
	Ratio of number of sports centers to population size	3
	Community halls	4

Source: Indonesian Government Regulation No. 19/2008

1. Scoring districts based on pre-determined variables to assess district performance, and
2. Participatory mapping to collect data and to elaborate the inter- and intra-district interaction of the inhabitants.

Crosschecking between these two data layers improved the quantity and quality of the detailed information employed and our understanding of it, thereby increasing the analytical credibility (Stewart et al. 2008, Bamberger et al. 2016, Meijering and Weitkamp 2016).

We measured each district's performance using the Indonesian Government Regulation No. 19/2008 which employs five indicator categories containing 20 variables. Every variable scores from 1 (poor) to 5 (good) and it has a prescribed weight set by the regulation as shown in Table 1.

After the quantitative scoring process was completed using this approach, the districts were then classified into five ability categories on the basis of their total scores as shown in Table 2.

Table 2

District Ability Classes

Score	Classification
420-500	Very capable
340-419	Capable
260-339	Less fortunate
180-259	Incapable
100-179	Very incapable

Source: Indonesian Government Regulation No. 19/2008

Participatory mapping is a tool designed to explore and reveal community characteristics and to visualize them on a map. It can encourage community participation by discussing particular issues and it can also uncover the values, behaviors, preferences, ways of thinking, opinions, and attitudes of stakeholders in a case study. This social aspect is useful for enriching both planning and decision-making processes (Strickland-Munro et al. 2016). In the present study, a combination of participatory mapping and focus group discussion (FGD) was used to gain insights into community interaction within Tanjung Pinang and also to uncover the inter- and intra-district regional relations. Both strategies were conducted on 8 October 2014 with all the city's district and sub-district leaders as invitees. Participants were grouped according to their four districts of origin, making for unequal groups size. The output of participatory mapping and FGD was then interpreted in a qualitative manner to illustrate the regional and community interaction. Figure 3 illustrates the process of participatory mapping and FGD.

Results and Discussion

In 2010, the Tanjung Pinang City Mayor tried to implement the Mayoral Decree No. 45 relating to the Additional Districts to accommodate the increasing population, the imbalance in population distribution, and the fast growing infrastructures in several sub-districts. The decree stated that the existing four districts would be divided into eight districts as shown schematically in Figure 4. Some of the boundaries are notional because there are no official maps of sub-district boundaries. In this scenario, Penyengat became a new district; Tanjung Pinang Timur was divided into two districts, namely Bandar Baru and Tanjung Pinang Timur; Tanjung Pinang Kota was divided into three districts; Tanjung Pinang Barat decreased in size due to the new delineation of Tanjung Pinang Kota; the Tanjung Pinang Kota Sub-District, together with some sub-districts from the Tanjung Pinang Barat District, became a new district called Tanjung

Pinang Kota District; and finally, Bestari District was divided into two main districts, namely Dompak and Bukit Besari.

Fig.3 – **Participatory mapping and FGD with stakeholders**

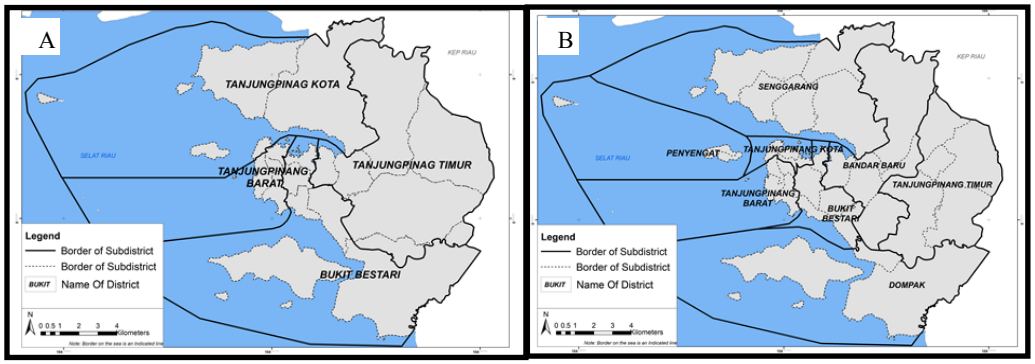


Fig.4 – **The changes in district delineation: A. Current district delineation, B. Delineation based on the Mayoral Decree No. 45/2010**
Source: 1. Quickbird imagery for Tanjung Pinang City in 2008; 2. Goverment Regulation No.19/2008, on District; 3. Proposal for district division 2010, Tanjung Pinang City.

The Penyengat District records the lowest score (257), indicating that it is the only one in the incapable class (Table 3). On the other hand, three separate districts – Bandar Baru, Tanjung Pinang Timur and Bukit Besari – are classified as very capable. Such scores indicate major intra-city disparities and probably an imbalance in the development potential. Based on the gap to the average, the Penyengat Indra Sakti District has a large gap of over 100. It means that the mayor's proposed strategy is unlikely to significantly reduce the current inner-city

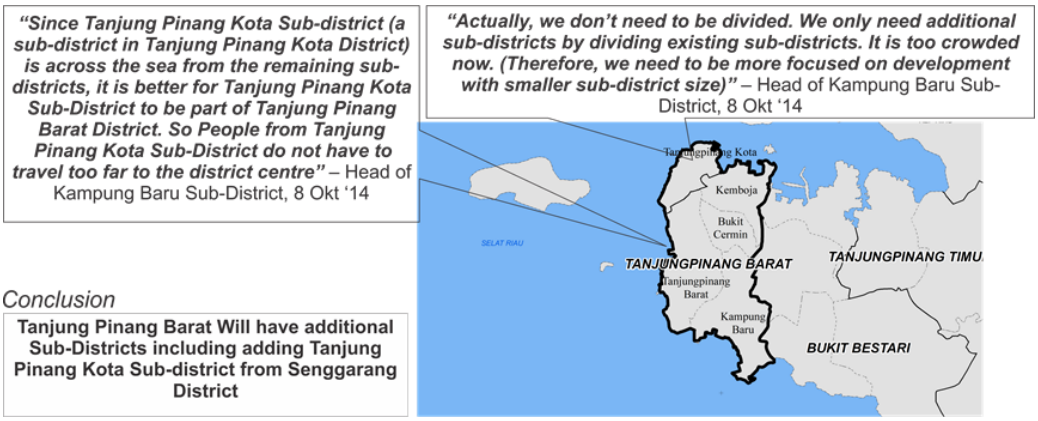
disparities. Therefore, the national government should not legalize the decree on the new arrangement of districts in Tanjung Pinang City.

Table 3

Scoring outputs of proposed district delineation based on the Mayoral Decree No. 45/2010

No	Name of District	Final Score	Category	Gap to the average
1	Tanjung Pinang Kota	354	Capable	-36.9
2	Penyengat Indra Sakti	257	Incapable	-133.9
3	Bandar Baru	489	Very capable	98.1
4	Tanjung Pinang Timur	457	Very capable	66.1
5	Senggarang	402	Capable	11.1
6	Tanjung Pinang Barat	398	Capable	7.1
7	Bukit Bestari	423	Very capable	32.1
8	Dompak	347	Capable	-43.9
Average		391		

Since the decree has failed to fulfill the requirement of reducing the imbalance in the development outputs or inner-city disparities, a new district delineation is needed using the methods already described. The benefit of using FGD lay in the building of common understanding among stakeholders and, to some extent, the creation of consensus among them. Figure 5 illustrates a sample of key opinions used in delineating the district boundaries.



A. Discussion on Tanjung Pinang Barat District

Fig.5 – **Key Findings of the participatory mapping and FGD in proposing the new district arrangement**

"So, eehh 5 sub-district become 10 sub-district. Kampung Bulang Sub-district will be divided into 2 sub-district. Then, Kota Piring (changes) into 2, Batu Sembilan (change) into 3, Plang Kencana (change) into 3". - Head of Tanjung Pinang Timur Sub-District, 8 Okt '14

"On average, most habitants work in Air Raja and Batu Sembilan District". - Head of Tanjung Pinang Timur District, 8 Okt '14

Conclusion

Tanjung Pinang Timur District can be divided into 2 districts since it will have 10 sub-district. Air Raja and Batu Sembilan can be the district centres for the new 2 districts after the division of Tanjung Pinang Timur

B. Discussion on Tanjung Pinang Timur District.

"Bukit Bestari District, can stand alone as a district (with a high performance score). Only Dompak (Island) Cannot stand alone dor now (separated from Bukit Bestari District) since there are no intensive economic activities". - Head of Sungai Jang Sub-District, 8 Okt '14

"The centre of provincial Goverment will be located in here (Dampak Island). Everything will be developed". - Head of Bukit Bestari Distict, 8 Okt '14

Conclusion

For a future scenario, Dompak can be seperated from Bukit Bestari District to be one of the new districts.

C. Discussion on Bukit Bestari District

"Bukit Bestari District, can stand alone as a district (with a high performance score). Only Dompak (Island) Cannot stand alone dor now (separated from Bukit Bestari District) since there are no intensive economic activities". - Head of Sungai Jang Sub-District, 8 Okt '14

"In the future, sub-districts in Tanjung Pinang Kota District will be divided (into 5). 2 from Senggarang and 3 from Kampung Bugis". - Head of Tanjung Pinang Kota District, 8 Okt '14

Conclusion

Tanjung Pinang Kota District will transform into Senggarang District since Tanjung Pinang Kota Sub-District become a sub-district of Tanjung Pinang Barat District

D. Discussion on Tanjung Pinang Kota District

Fig.5 – **Key Findings of the participatory mapping and FGD in proposing the new district arrangement**

In Figure 5A, stakeholders illustrate a more considered allocation process by dividing sub-districts into smaller sub-districts in the Tanjung Pinang Barat District. A key issue in the Tanjung Pinang Kota District is the location of the sub-district where the regional capital is located. It is separated from other sub-districts since it is located on an island. In addition, this sub-district is close to the Tanjung Pinang Barat District and it is therefore more accessible for people in Tanjung Pinang Barat than those from other sub-districts in Tanjung Pinang Kota, such as Senggarang and Kampong Bugis. Consequently, we recommend that the Tanjung Pinang Kota Sub-district should be part of Tanjung Pinang Barat District. We also recommend that the government divide the sub-districts of Tanjung Pinang Barat into smaller sized sub-districts than it is the case now. Moreover, the Penyengat Sub-district comprises several islands and it has a close relationship with the Tanjung Pinang Kota Sub-district and the other sub-districts in Tanjung Pinang Barat. The seaport connection among them is closer than the connection between the seaports in Penyengat and Senggarang. Therefore, the Penyengat Sub-district is more suitably part of Tanjung Pinang Barat rather than Tanjung Pinang Kota.

In Figure 5B, the FGD agreed that the Tanjung Pinang Timur District, reflecting the earlier discussion in 2009, should be divided into two districts: Bandar Baru and Tanjung Pinang Timur. These two new districts have different engines of economic growth. The Bandar Baru District will have the Bintan Centre, which is located in the Air Raja Sub-district as its commercial area and engine of economic growth. On the other hand, the Tanjung Pinang Timur District will still prosper with the new delineation since it contains the Batu Sembilan Sub-district where a commercial area has been developed. In addition, a new airport in the Pinang Kencana Sub-district should lead to the development of new residential areas within it.

In Figure 5C, it is also proposed to divide the Bukit Bestari District into two parts: Bukit Bestari and Dompak. Up to now, Dompak, a separated island, has been a sub-district of the Bukit Bestari District. The new capital of Riau Islands Province will be located on this island, which is expected to experience accelerated future development and the stakeholders therefore agreed to propose it as a new district.

Finally, in Figure 5D, the Tanjung Pinang Kota District will lose the current Sub-district of the same name. To meet the required number of sub-districts in a district, it is suggested that both the Senggarang and Kampung Bugis Sub-districts be sub-divided. Thus the revised Tanjung Pinang Kota District will comprise two sub-districts from Senggarang and three from Kampung Bugis, giving it the required number of 5. Since Tanjung Pinang Kota Sub-district becomes part of the Tanjung Pinang Barat District, it is recommended that the latter name be changed to Senggarang District. Figure 6 indicates the result of district delineation based on the participatory mapping – again using notional sub-district boundaries.

Table 4

Scoring outputs on proposed district delineation based on the participatory mapping

No	Name of District	Final Score	Category	Gap to average
1	Senggarang	355	Capable	-35.9
2	Tanjung Pinang Barat	388	Capable	-2.9
3	Air Raja	453	Very capable	62.1
4	Tanjung Pinang Timur	439	Very capable	48.1
5	Bukit Bestari	444	Very capable	53.1
6	Dompak	272	Incapable	-118.9
Average		392		

In the new arrangement based on participatory mapping, the number of districts decreases from eight, as set by the government decree of 2010, to six. Using the previous scoring process

for calculating the performance of the six new districts yielded the results displayed in Table 4. The Dompak District has a low score of 272, which demotes it to the incapable category. The large gap from the average for Dompak District (a score of over -100) indicates a high inner-city disparity. Therefore, the district re-arrangement based on participatory mapping and FGD does not qualify for the central government approval since there is still one district that is less than 340.

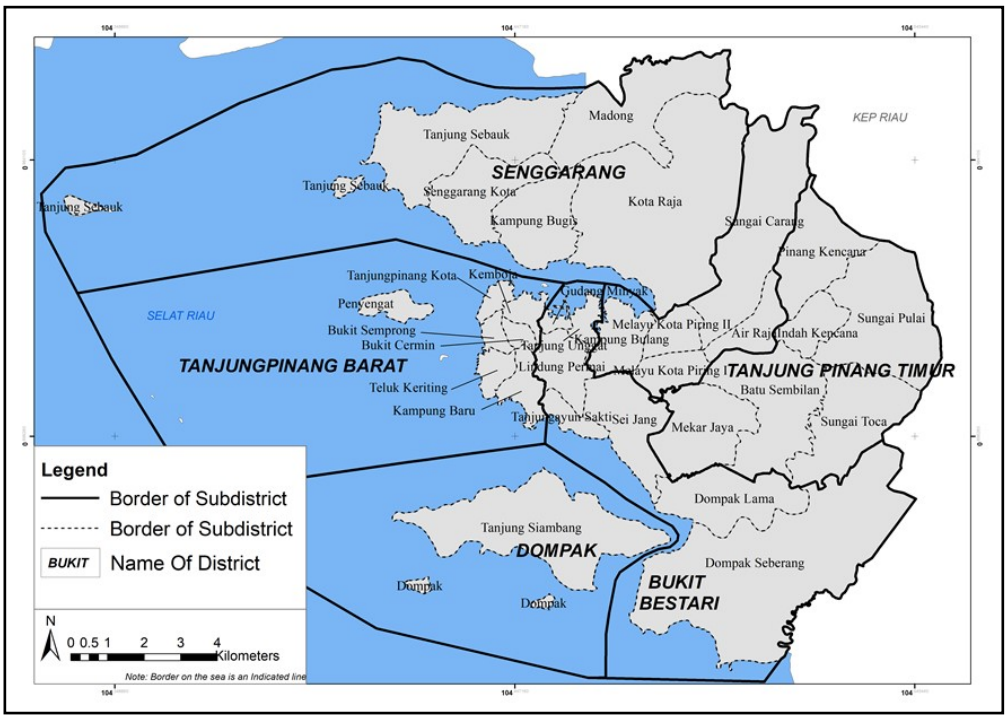


Fig. 6 – **District boundaries based on participatory mapping**
Source: 1. Quickbird imagery for Tanjung Pinang City in 2008; 2. Goverment Regulation No.19/2008, on District; 3. Proposal for district division 2010, Tanjung Pinang City.

Although the output of participatory mapping and FGD in un-implementable, it is still valuable as an input for the next analysis, particularly for the Dompak Sub-district. The analysis will elaborate stakeholders' narrations from participatory mapping via FGD, especially information on Bukit Bestari District and its sub-districts. Understanding the information from the stakeholders can uncover insights on stakeholders' aspirations and reveal other possibilities for administrative boundaries. Key information on the Bukit Bestari District and its sub-districts is as follows:

1. Since the Dompak Sub-district is still underdeveloped, the dependency of its activities on the main island is still high. All public services and commercial activities in Dompak are dependent on the Dompak Seberang Sub-district. The bridge connecting Dompak Island to the main island increases the dependency and interaction between them. Therefore, Dompak Island should be one of the sub-districts of a district on the main island until it is more developed.
2. In the Bukit Bestari District, most sub-districts, apart from the Dompak Sub-district, perform sufficiently well to become the new district centre. Some of them accommodate

recent spill-over development from Tanjung Unggat, which has such major facilities as a Sekolah Tinggi Ilmu Sosial dan Ilmu Politik (STISIPOL = Social and Political Science Institute), Sekolah Tinggi Ilmu Kesehatan (STIKES = Health Science Institute), a mini golf course, hotels, the Ramayana Shopping mall, a seaport, and a big market. If the Dompak Sub-district is included in this district, its score will be higher than 444. This is the score for Bukit Bestari District plus Dompak Island. A score of 444 is classified as very capable. It is much higher than the minimum capable score of 340. Consequently, Bukit Bestari and Dompak Island should be divided into two districts, i.e. Bukit Bestari District with new delineation and Dompak District.

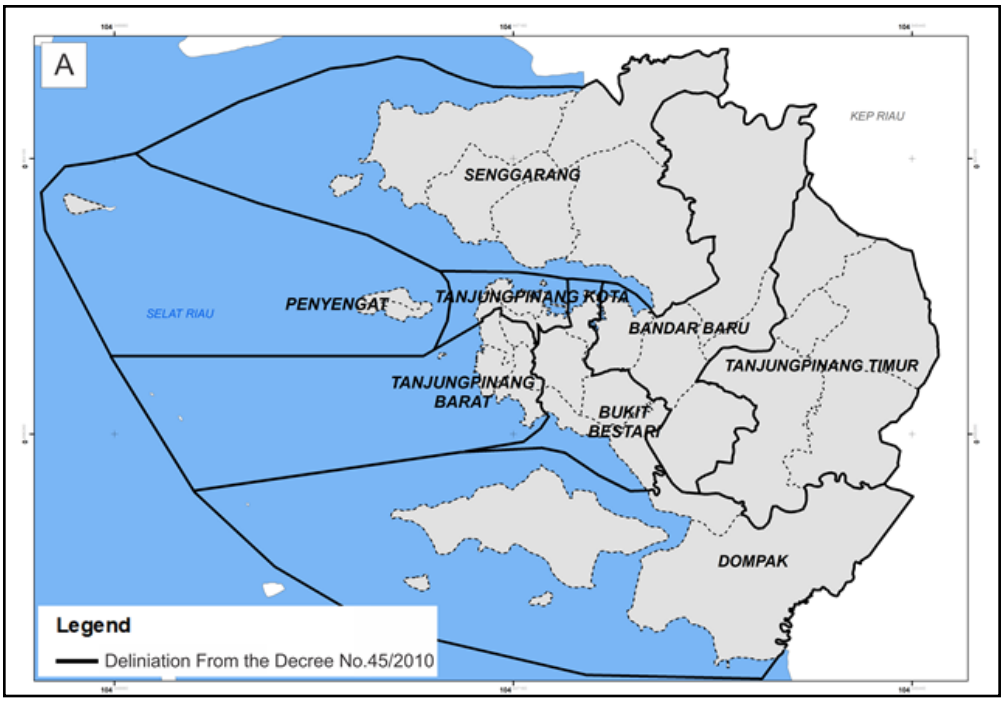
3. For the Dompak District to have an adequate score, Dompak Island cannot stand alone such as in Table 4 and Figure 6. We therefore suggest that the Dompak Lama and Dompak Seberang Sub-districts join Dompak Island to become the Dompak District, which also accommodates the stakeholders' comments as in point 1 above. Since the proposal includes only three sub-districts, both Dompak and Dompak Seberang Sub-Districts will be divided into 2 sub-districts (Dompak Seberang Sub-district and Tanjung Siambang Sub-district). The revised score for this arrangement is 342, which is classified as capable, meaning that the new delineation of Dompak District is acceptable.
4. Based on point 3, the number of sub-districts in Bukit Bestari District will decrease from eight to six, which is still allowable in terms of the minimum number of sub-districts and it scores 386, indicating a capable district.
5. In terms of scores, the final output for every district falls in the capable and very capable categories and Table 5 clarifies that they all pass the minimum requirement to be legalized as new district arrangements. In terms of the gap from the average, a gap of less than 50 indicates a relatively low level of intra-city disparity. This arrangement also shows the highest average score compared to the previous two district arrangements. Nevertheless, both Dompak and Senggarang Districts still require a special focus on future development strategies. Both districts have gaps of around 50 below average and appropriate development strategies for them can reduce their economic and social disadvantage.

Table 5

Final District Arrangement

No	Name of District	Final Score	Category	Gap to average
1	Senggarang	355	Capable	-35.9
2	Tanjung Pinang Barat	385	Capable	-5.9
3	Bandar Baru	453	Very capable	62.1
4	Tanjung Pinang Timur	446	Very capable	55.1
5	Bukit Bestari	386	Capable	-4.9
6	Dompak	342	Capable	-48.9
Average		395		

Based on the above information, Figure 7 shows the new district delineation. It also illustrates the changes in delineation created by participatory mapping (PM) and FGD and the final output compared to the 2010 decree. In the final output, the districts of Tanjung Pinang City are Senggarang, Bandar Baru, Tanjung Pinang Barat, Bukit Bestari, Tanjung Pinang Timur, and Dompak. Table 6 lists the final arrangement of sub-districts.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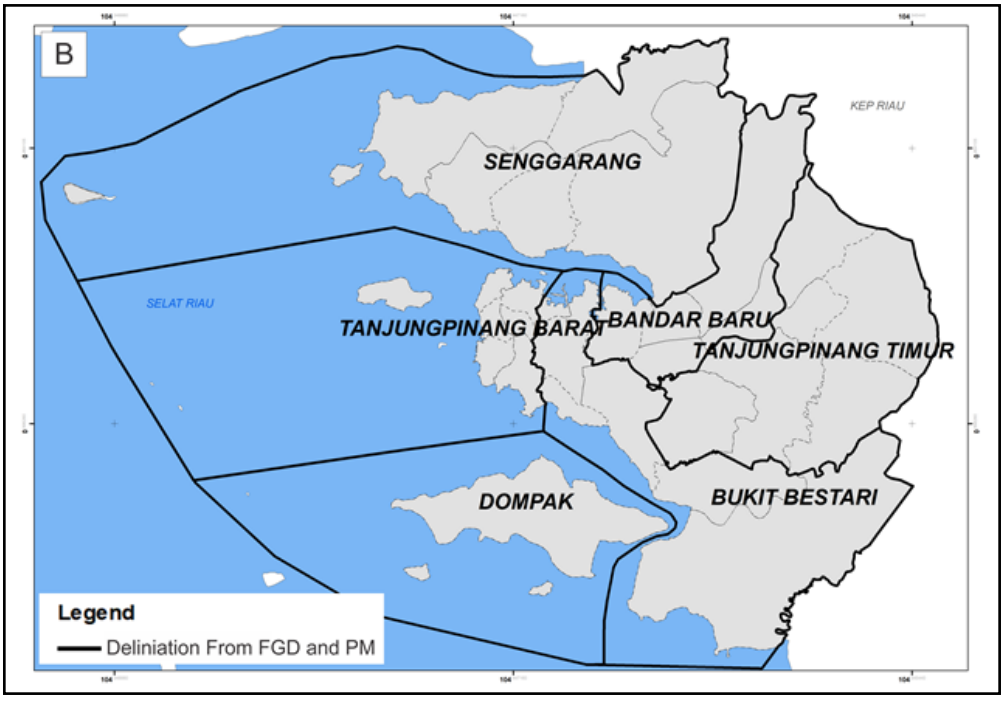
B
KEP RIAU
SENGGARANG
SELAT RIAU
TANJUNGPINANG BARAT
BANDAR BARU
TANJUNGPINANG TIMUR
DOMPAK
BUKIT BESTARI
Legend
Deliniation From FGD and PM

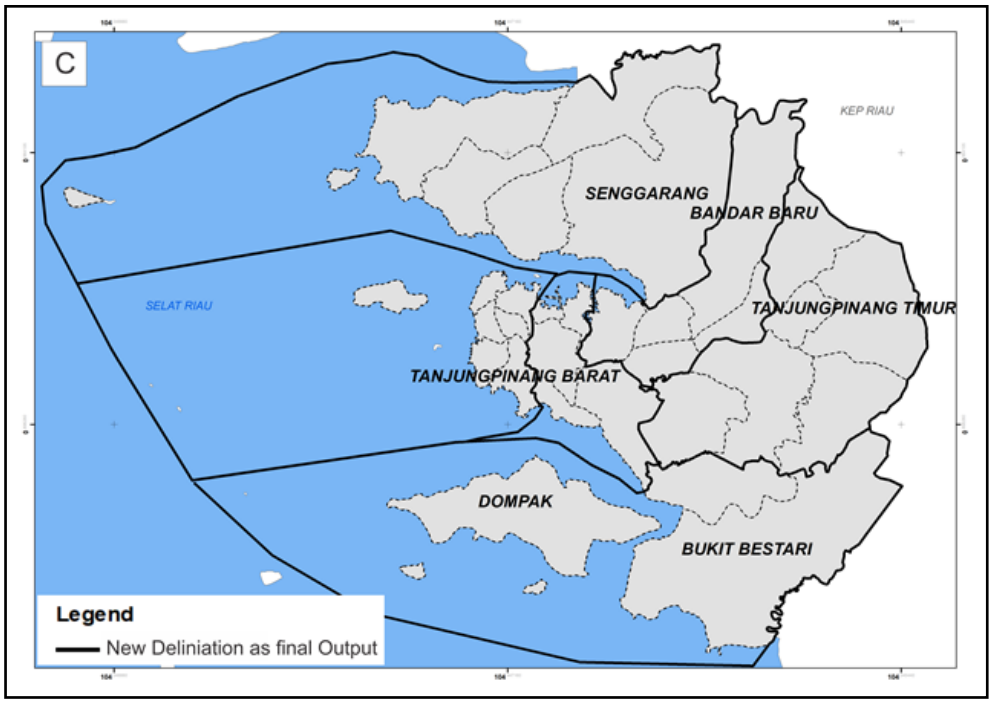

Fig.7 – **Transformation of Proposed District Delineation:**
A. Mayoral decree delineation; B. Delineation based on FGD and PM; C. Final proposed delineation

Table 6

Final Proposed Districts and Sub-districts

No	Name of District	Name of Sub-districts
1	Senggarang	Sebauk, Senggarang Kota, Kampung Bugis, Kota Raja, Madong.
2	Tanjung Pinang Barat	Tanjung Pinang Kota, Kemboja, Bukit Semprong, Bukit Cermin, Teluk Keriting, Kampung Baru, Penyengat.
3	Bandar Baru	Sungai Carang, Air Raja, Melayu Kota Piring 1, Melayu Kota Piring 2, Kampung Bulang.
4	Tanjung Pinang Timur	Pinang Kencana, Sungai Pulai, Kijang Kencana, Batu Sembilan, Sungai Toca, Mekar Jaya.
5	Bukit Bestari	Gudang Minyak, Tanjung Unggat, Lindung Permai, Sei Jang, Tanjungayun Sakti.
6	Dompak	Dompak 1, Dompak 2, Dompak Lama, Dompak Seberang 2, Tanjung Siambang.

In implementing the proposed district arrangement, four main development strategies should be carried out. These key development strategies indicate the new pattern of development in

Tanjung Pinang City, especially for the Dompak and Senggarang Districts, which have the two lowest scores. The strategies are:

1. Enhance the multiplier effect of a new provincial capital city on Dompak Island. The newly designated areas for the provincial capital on Dompak Island will boost the island's development. Many cities in Indonesia have benefitted from their administrative function, including Jakarta, Surabaya and Medan. The new capital city will also receive investment in public facilities, but one of the main challenges will be to leverage private investment on the back of public expenditure. The zoning of industrial areas in the Seberang Sub-district might have significant advantages due to its proximity to the capital city. Therefore, the multiplier effects of administrative activities in the Dompak Island can be increased by improving the connection of industrial areas to the capital as well as to such major infrastructure items as the airport and seaport. Furthermore, most administrative cities require residential areas and other residential supporting facilities. The multiplier effect of the capital city can also be stimulated via large-scale residential areas.
2. Accelerate sub-district division in Senggarang District to stimulate the development process. After losing the Tanjung Pinang Kota and Penyengat Sub-districts, Senggarang requires additional sub-districts to reach the minimum of five sub-districts in order to be able to implement the new district arrangement. The opportunity to increase the number of sub-districts is high since the municipal capital city of Tanjung Pinang City will be moved to the Senggarang District. Setting up the new municipal capital city can attract other investments for development from both public and private parties. Therefore, the Tanjung Pinang City Government has to focus on providing appropriate and supportive regulations to accelerate the development of the municipal capital city and sub-district division in Senggarang District. To some extent, the city government also needs to provide some funds for developing public facilities in Senggarang to be '*the frontier' of* development. In the Indonesian context, the administrative status of a region can make an important contribution to its prosperity, and the higher its administrative status the more likely it is to receive investment in public infrastructure, which will in turn stimulate more investment both from public and private parties.
3. Provide adequate public services, particularly for the Penyengat Sub-district, which performs poorly in terms of public facilities. It consists of some small islands and it requires infrastructure investment to connect them with the main island and district center. Strong government investment in public facilities is critical to trigger the region's economic development, perhaps utilizing environmental and cultural tourism activities to both stimulate the output and to reduce intra-city disparities.
4. Develop the areas surrounding the new airport in the Pinang Kencana Sub-district. This major infrastructure facility can boost the surrounding development. Many cases of development have shown the economic potential of airports, called aero-city and Tanjung Pinang City can follow suit.

Conclusion

By using the ideas of stakeholders through a process of participatory mapping via FGD and scoring district performance across a range of variables, six districts were delimited for Tanjung Pinang City: Senggarang, Tanjung Pinang Barat, Bandar Baru, Tanjung Pinang Timur, Bukit Bestari and Dompak. All districts' boundaries are modified for a more balanced development performance.

Furthermore, Dompak Island and the Senggarang District have a special opportunity to plan the major infrastructure development necessary to sustain their respective roles as provincial

and municipal capital cities. The Pinang Kencana Sub-district's new airport also provides an opportunity to boost local development in its jurisdiction. Moreover, Penyengat Island should focus on infrastructure development to ensure that other development processes in Tanjung Pinang City will not marginalize the island. These development strategies can assist in the reduction of the intra-city disparities. Furthermore, as part of network cities, the specialty in every districts and infrastructures development can increase connectedness among the districts. Those connected districts will also balance and improve the development outputs.

In line with the district arrangement procedure in the Government Regulation No. 19/2008, the district re-arrangement process above was unable to provide the optimal solution, particularly in reducing intra--city disparities. A combination between the scoring process and participatory mapping via FGD has given substantial insights into district and sub-district interactions. The combination technique can also optimize all potential solutions and assess iteratively the predicted outputs of all potential solutions. Within this calculation, the re-arrangement of district and sub-district delineation can also contribute to decreasing intra-city disparity. Therefore, this combination technique is very suitable for district boundaries rearrangement as part of a development strategy. This combination technique should be applied in the Indonesian formal regulation of districts (or any administrative boundaries) delineation process.

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Correspondence: Faculty of Civil Engineering and Planning, ITS Surabaya, Kampus ITS, Sukolilo, Surabaya 60111, Jawa Timur, Indonesia.

Email: adjie@urplan.its.ac.id

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REGIONAL TRANSFORMATION IN SEMARANG CITY, INDONESIA

Sri Rum **GIYARSIH**, *Muh Aris* **MARFAI**
Universitas Gadjah Mada, Yogyakarta, Indonesia

Abstract: Endowed with rapidly changing physical and socio-economic conditions, Semarang City in Central Java Province serves as an interesting case study of Indonesia's urban transformation. Secondary data, coupled with field observations and in-depth interviews with key informants and experts, were analyzed using both qualitative and quantitative descriptive methods to show complex variations in urban evolution between Semarang's numerous districts, with changes occurring much faster in some locations than in others. We show that urbanisation proceeds most rapidly where vacant open spaces and investment in various kinds of new public infrastructure are dominant, especially in such districts as Tembalang, Gunungpati, Genuk and Pedurungan. In contrast, transformation processes operate more slowly in Semarang's saturated inner core.

Key Words: *urban transformation, region, Semarang city, Indonesia*.

Introduction

In the last twenty years, several of Indonesia's cities have experienced rapid urbanization, with two contrasting impacts. Urbanisation attracts migrants to fulfill job opportunities, albeit paying from low to medium wages, while also increasing the numbers of the unemployed, creating slums or shanty towns, generating traffic congestion and many other classic urban problems (Giyarsih 2014). Such regional transformations have featured prominently in the recent analysis of Indonesia's regional development (Rahmawati 2015, Harini et al. 2016), and Giyarsih (2010) perceives them as a civilizing improvement. Despite this positive assessment, Tacoli (2003), Harini et al. (2014) and Novianty (2015) have identified various negative impacts resulting from the fast urbanisation in addition to those just mentioned. Obviously, there is the loss of agricultural land which is, according to Setyono et al. (2016), coupled with the infiltration of urban elements into the peri-urban space. However, Umar (2014), Woltjer (2014) and Anjarsariningtyas et al. (2016) also observe changes in many other social and economic dimensions. For example, wage systems have tended to replace mutual aid and, likewise, modern markets have largely replaced the traditional retail distribution.

Giyarsih (2014) provides three components of regional transformation, namely:

(a) An economic dimension, such as the change in occupational structures from agriculture to those in manufacturing, trade and services;

(b) Spatial dimensions, such as the conversion of agricultural land use to urban purposes and enhanced population mobility; and

(c) Such social dimensions as the shift from a complex set of traditional customs in the rural society to a simpler and more homogeneous set of behaviors in the urban space.

Yunus (2008) also confirms these dimensions and, in particular, he notes the distinctive rural (*paguyuban*) and urban (*patembayan*) behavior systems.

Like other metropolitan regions in Indonesia – including Jakarta, Bandung, Surabaya, Medan, Palembang, and Makassar – Semarang has experienced regional transformation (Wilonoyudho 2011). As the capital city of Central Java Province, it has witnessed the fastest development in

the province. Administratively, the city comprises 16 districts and our research tracks the different patterns and processes of economic, social and urban transformation occurring across all of them, while assessing both their positive and negative consequences. In this task, we will also (a) refine theories about the growth processes involved; and (b) assess their implications for an improved urban management, focusing especially on city and infrastructure planning over both the short- and long-term, and also on environmental management. Thus, we blend theory and practice, enriching the field of urban geography, and helping various stake-holders to develop better analytical frameworks for managing the city and its surrounds.

Methodology

Semarang City in Central Java Province (Fig. 1) was selected as a research area because it has been changing rapidly, in both physical and socio-economic terms, either from rural to urban or from a less urban to a more urban area (Marfai and King 2008, Marfai et al. 2008). Its selection also reflects Semarang's dominant role in Central Java. Moreover, Wilonoyudho (2011) concludes that the city has experienced excessive urbanization, particularly due to an unbalanced relationship between the level of urbanization and economic growth. In short, Semarang is overcrowded with unproductive informal sectors, unlike urbanization in many developed countries which depend on an advanced industrial base.

As noted earlier, the information used in this research includes statistical data, augmented by field observations and in-depth interviews. The former were derived from *Subdistrict in Figures* for 9 districts in 1990 and 16 districts from 2000 onwards. Data for 2012 came from *Semarang City in Figures* provided by Indonesia's Statistics Agency (Biro Pusat Statistik – BPS). Additional data were provided by Semarang's Regional Development Planning Agency (BAPPEDA). Statistics were analyzed quantitatively using univariate procedures. In-depth interviews were held with key officials and other expert staff from (a) BAPPEDA and (b) the Department of Urban and Regional Planning within Universitas Diponegoro's Faculty of Engineering. All interviewees had deep knowledge or contemporary urbanisation processes in Semarang and elsewhere in Indonesia. Qualitative techniques were used to analyze the primary data obtained from formal interviews and discussions with several other informants.

Our research employed five key variables to estimate the extent of urban transformation in different districts in and around Semarang. These are: (a) population density; (b) population growth; (c) the percentage of farm households; (d) the percentage of built-up area; and (e) the availability of key socio-economic facilities. These were combined into a single index of rural-urban transformation, albeit complemented by field observation and in-depth interviews to enrich the understanding of the processes involved during the period between 1990 and 2012, including data for 2000. However, the level of regional transformation in 1990 was determined using four variables only, i.e. without considering the population growth because of data unavailability. The assessment of socio-economic infrastructure relied solely on educational and religious facilities due to the paucity of data relating to other dimensions. Each of the 5 variables for each of Semarang's districts was assigned a score ranging from 1 to 3, with 1 reflecting low, 2 medium, and 3 high transformation. Consequently, each district obtained a transformation score (or summary index) ranging from 5 to 15. We arbitrarily assigned indices of 5 to 8 as low, 9 to 11 as mid-range, and 12 to 15 as reflecting high transformation. Indices were also computed for each of the census years: 1990, 2000, and 2012 – permitting the assessment of the transformation dynamics over time. Since a high percentage of farm households was deemed a negative transformative indicator, the scores 3, 2, and 1 respectively reflect low, middle, and high levels of farming activity. Aggregate regional transformation indices for every district of Semarang City in 1990, 2000, and 2012 are presented in Table 1.

Fig.1 – **Administrative Map of Semarang City**

Results and Discussion

In 1990, Semarang City consisted of 9 districts, five of which ranked of low to middle transformation. The remaining four districts exhibiting high transformative capacity enabled Semarang as a whole to attain mid-level regional transformation – or around 56% of the maximum possible. By 2000, Semarang administratively comprised 16 districts, reflecting the occurrence of urban sprawl over the previous decade. Indonesia's district and city configurations are set by the national government in Jakarta. And Government Regulation No. 50 in 1992 affirmed the expansion of Semarang City from 9 – set long in the past by Government Regulation No. 16 in 1976 – to 16 districts. The addition of seven additional districts to Semarang reflected an interesting philosophy that smaller areas enable more efficient regional management and development. Table 1 shows that 13 districts recorded high

Table 1

The regional transformation level in every district of Semarang city in the period 1990-2012

No	Districts	Levels of Regional Transformation		
		1990	2000	2012
1	Mijen	Low	Middle	High
2	Gunungpati	Middle	Middle	High
3	Banyumanik	No data	High	High
4	Gajah Mungkur	No data	High	High
5	South Semarang	High	High	High
6	Candisari	No data	High	High
7	Tembalang	No data	High	High
8	Pedurungan	No data	High	High
9	Genuk	Middle	High	High
10	Gayamsari	No data	High	High
11	East Semarang	High	High	High
12	North Semarang	High	High	High
13	Central Semarang	High	High	High
14	West Semarang	High	High	High
15	Tugu	Low	Middle	High
16	Ngaliyan	No data	High	High
17	Semarang City	Middle	High	High

Source: BPS Semarang City (1990, 2000, 2012)

transformation by 2000, with only three being mid-range so that transformation was proceeding rapidly at roughly 81% of the maximum. And by 2012, every district in the city recorded a high-level regional transformation.

The districts that experienced a change in their levels of regional transformation within the period of 1990 and 2000 were Mijen, Tugu, and Genuk. The first two increased from low to middle by 2000, while the level in Genuk District increased from middle to high. All are located peripherally to Semarang's CBD, as shown in Fig.1. Between 2000 and 2012, an increase in regional transformation level occurred in three districts with mid-level regional transformation in 2000, i.e. Mijen, Gunungpati, and Tugu. All three attained high-level regional transformation status by 2012 and they were again located towards Semarang's western fringe. Consequently, the regional transformation level of all Semarang's districts collectively in 2012 was high. Thus, in the 22 years from 1990 to 2012, Semarang City had experienced an upward change in its pace of regional transformation, i.e. from mid-level at the start of the period to a high-level from 2000 to 2012. Its urban characteristics changed over time, which was in line with the change occurring in the society.

Thus far, our analysis has focused on Semarang's past and present regional transformation. The city has experienced rapid population growth and economic development as a consequence of its strategic position in the North Coast Road and its functionality as both a regional and national transport node. According to Wilonoyudho (2011), the spontaneous urban agglomeration along regional transport routes in Semarang parallels changes in the structure of commercial activity and in turn its spatial organisation. One particularly important event was the shift in CBD urban functions from manufacturing to business and community services which led to the marginalization of the urban poor (Wilonoyudho 2011). Luxurious hotels and shopping

malls in the city centre replaced the dwellings of indigenous peoples with low socio-economic status.These 'indigenous' people were not a separate ethnic group, but they were simlpy long-term residents in this district (i.e. the city center).

Manufacturing activities often require considerable space, which is increasingly difficult to find in Semarang's Central Business District (CBD). Thus, many manufacturing activities have chosen to locate on the city's outskirts in such locations as the Kendal, and Demak Regencies (Fig. 2). This phenomenon is consistent with the studies carried out by Woltjer (2014), Sriartha and Giyarsih (2015), Li et al. (2015), Buxton et al. (2016), Giyarsih and Fauzi (2016), Liu et al. (2016), and Sudrajat (2016), which conclude that the urban development on the outskirts is due to: (1) the presence of adequate transportation links; (2) proximity to the activity center (CBD); (3) people's increasing preference for 'low density residential lifestyles'; and (4) the need for large sites by many industries and services on the peri-urban frontier. The location shift of manufacturing activities to Semarang's outskirts meets the criteria identified by the authors just cited. Therefore, many people and urban functions, including the functions of manufacturing activities, choose to reside in and grow on the outskirts instead of at the center of Semarang.

Fig. 2 **- Industrial zone in Ngaliyan district adjacent to Kendal regency**
Source: Authors' Documentation (2016)

Wilonoyudho (2011) found that several old villages like Basahan, Jayenggaten, Morojayan, Petroos, Mijen, Sekayu, and others on Pandanaran Road at the center of Semarang City disappeared as they were converted to commercial and business use. This phenomenon indicates the land scarcity at the center of the city, which inevitably leads to the sprawl of urban people and functions to the outskirts. Due to the increasing population, several districts within Semarang City had initially increased their facilities and functions. Two of these districts are Mijen and Gunungpati. Based on the Statistics of Indonesia (BPS) for the Semarang City in 2012, the population densities in Mijen and Gunungpati are of 878 people per km^2 and 1,413 people per km^2, respectively. These two districts have the lowest population density in the city. The results of field observation showed that the residential density in each district in Semarang

City is parallel to the population density. An in-depth interview with Satya Hadi (Head of Physical Infrastructure Sector, the Regional Development Planning Agency of Semarang City) on May 22, 2016 corroborates the statistics. He confirmed the issue:

> *"In Semarang City, only two districts are still able to be developed. They are Mijen and Gunungpati Districts because their population densities are categorized as low. However, the development has to be conducted very carefully".*

In the recent years, the Pedurungan, Genuk, and Tembalang Districts have experienced similar phenomena, namely the expansion of large-scale settlement carried out by developers. Pedurungan and Genuk became the destination of large-scale settlement expansion, driven by many residential property developers. One outcome was sharply rising – the commuter traffic to and from the city center and the rush hours are always associated with traffic jams (Fig. 3). Meanwhile, the urbanisation of Tembalang District was accelerated by the relocation of Universitas Diponegoro there.

Fig. 3 - **Rush-hour traffic from Demak regency**
Source: Authors' Documentation (2016)

The phenomena occurring in Pedurungan and Genuk Districts confirm the findings of Giyarsih and Fauzi (2016), who stated that residential property developers may play a pivotal role in regional transformation. Both small- and large-scale housing developments in these two districts triggered collateral development in the surrounding regions. This is because developers usually construct such supporting infrastructure as road networks, mobile phone towers, electricity lines, clean water pipes, sporting venues, and early education facilities such as kindergartens. Adjacent communities can usually tap into many of these supporting facilities and in turn become migrant destinations. Our findings are also in line with the work of Tuloli (2013) and Hatam (2016) who observed that one of the perceptible indicators of potential urbanisation is the drastic increase in land prices in latent settlement zones due to the influence of public facilities and utilities built by the construction developers elsewhere. Rising land prices also reflect the early infrastructure work by the property developers. The results of in-depth interview with Dr. Jawoto Sih Setyono, an expert on regional and urban planning from Universitas Diponegoro, on August 8, 2017, revealed that raw land prices are increasing by

15%-20% annually, especially in those areas equipped with supporting infrastructure.

The Tembalang District experienced especially rapid urban transformation when, gradually between 1987 and 2012, the Universitas Diponegoro moved from Central Semarang to the area. Over 44 000 students enrolled in the University had to access the area daily and dramatically increased urban traffic density. Unsurprisingly the move also increased the demand for student board and lodgings, food stalls, groceries, computer rental shops, photocopying and laundry services, internet cafes etc., all of which sought to support the university life (Fig. 4). During an in-depth interview, Dr. Jawoto Sih Setyono stated:

> *"In the past, in the beginning of the relocation of Universitas Diponegoro, the situation in Tembalang [District] was quiet. No socio-economic facilities supported university life. The condition of the traffic was not as heavy as today."*

Fig. 4 **- The emergence of socio-economic activities to support the university life of Universitas Diponegoro**
Source: Authors' Documentation (2016)

Our research findings corroborate Sriartha et al. (2015), who emphasize the role of public facilities as a trigger for regional transformation. In our case, the establishment of a university became a pull-factor for the urbanisation of Tembalang and adjacent locations. Table 2 shows the number of migrants in every district in Semarang City and that Pedurungan, Genuk, and Tembalang received the highest number of in-migrants in 2012. Indeed, in-migration in those locations exceeded the number of births. Therefore, according to the theory developed by Giyarsih and Alfana (2013), these three districts have become the destination of migrant influxes. The findings of Giyarsih and Fauzi (2016) and Ma'fudz (2016) also confirm this observation.

Rachmawati et al. (2004) found similar phenomena in the Sleman Regency's Ngaglik District – a Special Region of Yogyakarta – after the establishment of the Universitas Islam Indonesia there. Similar phenomena were also found by Sarwadi et al. (2013) and Sriartha and Giyarsih (2015) in the Bantul Regency's Kasihan District, another Special Region of Yogyakarta, after the establishment of Universitas Muhammadiyah Yogyakarta. Aside from the Tembalang District, the Gunungpati District is also developing rapidly after the establishment of Universitas

Negeri Semarang. Formerly located in the Gadjah Mungkur District, it also relocated gradually between 1989 and 1993 and, by 2012, it had 32 037 students enrolled. Before this event, the receiving district was a quiet rural location with considerable agricultural land, but afterwards it was expected to show a similar trajectory to Tembalang after the arrival of the Universitas Diponegoro (BPS Kota Semarang 2012). Field observation also showed that the regional development in some areas in Semarang City was associated with the presence of a college campus, for example the areas close to the campus of Universitas Diponegoro. The research revealed that student numbers at the Universitas Diponegoro increased by 10% over the last ten years.

Table 2

The number of births, deaths, and in- and out-migration in Semarang City in 2012 (in people)

Districts	Births	Deaths	In-migration	Out-migration	Total Change
Mijen	859	327	2115	982	1665
Gunungpati	1095	384	1851	1011	1551
Banyumanik	1794	736	3521	3967	612
Gajah Mungkur	972	412	1394	1680	274
South Semarang	1073	650	1481	2335	-431
Candisari	1261	621	1666	2224	82
Tembalang	2505	892	5688	2900	4401
Pedurungan	2550	936	5301	5245	1670
Genuk	1717	424	3624	1740	3177
Gayamsari	1266	434	2140	2421	551
East Semarang	1065	666	1429	2546	-718
North Semrang	1939	1004	2397	3552	-220
Central Semarang	982	610	1254	2401	-775
West Semarang	2273	1122	3341	5644	-1152
Tugu	465	154	780	483	608
Ngaliyan	1818	640	4199	2895	2482
Semarang City	23634	10012	42181	42026	13777

Source: BPS Kota Semarang (2012)

A rapidly growing region tends to become the destination of migrant influxes. In term of employment, regional transformation is characterized by the shift of the employment sector from Agriculture (A) to Manufacture (M) and then to Services (S). Table 3 presents the percentage of the population of Semarang City according to the employment sectors, and it shows that the agricultural sector in every district in Semarang City does not significantly contribute to population employment, except at Mijen. On the contrary, the services sector has the predominant role in absorbing workers in the research area. A conspicuous phenomenon occurs in the nonlinearity of the employment sector shift in the research area, which unlikely occurs in the employment transformation of developed countries.

The sectoral structure of Indonesia's workforce has evolved in a non-linear fashion from sector A to M and then to S. The nation lacks large-scale and/or highly capital intensive industries whose great efficiency forces workers to embrace the services sector, albeit often efficiently run and capital intensive. Indonesia's manufacturing industries tend to be small- and often household-scale enterprises, which absorb many workers. Indonesia's urban-based services

sector is also dominated by informal working arrangements which are neither highly capital nor technology intensive, as in most developed countries. Thus, as Wilonoyudho (2011) observed, Indonesia's employment transformation moves non-linearly, with agricultural workers often moving directly to the services sector without embracing manufacturing.

Table 3

The Semarang's workforce employed in agriculture, manufacturing and services (2012)

District	Agriculture %	Manufacture %	Services %
Mijen	43	27	30
Gunungpati	20	27	53
Banyumanik	7	5	88
Gajah Mungkur	0	13	87
South Semarang	0	20	80
Candisari	0	19	81
Tembalang	2	1	96
Pedurungan	3	28	69
Genuk	21	40	39
Gayamsari	1	51	49
East Semarang	0	29	71
North Semarang	0	25	75
Central Semarang	0	20	80
West Semarang	1	34	65
Tugu	17	20	63
Ngaliyan	14	27	59
Semarang	7	26	67

Source: BPS Kota Semarang (2012)

Workers in Semarang's predominantly informal services sector tend to have low education and skill levels (Sarjono 2005, Alisjahbana 2006, Wilonoyudho 2011) and, consequently, they receive low incomes. In order to earn money in the informal sectors, workers have to be willing to adapt quickly to the emerging demand and opportunity and they contribute to the relatively small financial capital.

Conclusions

Semarang has been experiencing a rapid regional transformation, although several districts close to the city center have reached a kind of saturation point. The lack of open space and developable land are restricting opportunities for further development. In turn, this encourages the spread of industries, services and employment to more peripheral locations able to absorb many different urban functions flexibly and adaptably, transforming themselves in the process. For example, the Tembalang and Gunungpati Districts received many sprawling urban functions following the establishment of Universitas Diponegoro and Universitas Negeri Semarang respectively, growing rapidly in their wake. Following a different route, the Genuk and Pedurungan Districts benefitted from property developers engaged in large-scale residential subdivision and the provision of considerable economic and social infrastructure, which also stimulated regional development significantly. The urban function shift to the districts located on the outskirts of Semarang make them the destination of migrant influxes. Thus the city's development is dynamic, multi-faceted, and accelerating in often complex and unforeseen ways.

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Correspondence: Faculty of Geography, Universitas Gadjah Mada, Skip Utara Jln Kaliurang Bulaksumur, 55281 Yogyakarta, Indonesia.

Email: arismarfai@ugm.ac.id

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ENTERPRISE SUPPORT POLICY AND TERRITORIAL COHESION: THE CZECH REPUBLIC (2007-2013)

Jiří **NOVOSÁK***, *Oldřich* **HÁJEK***, *Jana* **NOVOSÁKOVÁ****, *Milan* **LINDNER*****
*Tomas Bata University in Zlin, Czech Republic
**University of St. Cyril and Methodius in Trnava, Slovakia
***Newton College Prague, Czech Republic

Abstract: The intention of this paper is to evaluate whether the spatial distribution of Structural Funds (SF) for enterprise support interventions follows the relevant territorial cohesion objectives specified in the strategic documents of the Czech Republic in the programming period 2007-2013. The evidence provided suggests mixed results. A relatively high SF allocation to the regions, characterized by strong agglomeration economies and a strong entrepreneurial climate, supports the competitiveness objective, particularly for innovation-oriented interventions. Nevertheless, little support is given to the objective of balanced development because socio-economically disadvantaged regions do not receive a higher SF allocation, in particular traditional industrial regions suffering from industrial decline, high unemployment and with a poor entrepreneurial climate. In this regard, the absorption capacity concept is emphasized as being important for explaining the spatial distribution of SF.

Key Words: *enterprise support policy, territorial cohesion, absorption capacity, structural funds.*

Introduction

A number of studies have demonstrated a positive relationship between new business formation and regional development. It is claimed that new businesses are a source of innovation and of new employment opportunities (Henry et al. 2003, Lee et al. 2004, Qian et al. 2013), also stimulating structural change and strengthening regional competitiveness (Wang 2006). Other studies have emphasized the importance of fast-growing businesses and of the existing stock of SMEs for job creation and regional growth (Audretsch 2004, Stam 2005). Not surprisingly, these arguments have spurred governments to be interested in enterprise support policies.

The theoretical rationale of enterprise support policies is based on market imperfections, arising from information and knowledge asymmetries, from financial constraints, and from a divergence between private and social interests (Henry et al. 2003, Acs et al. 2016). Additionally, Acs and Szerb (2007), Huggins and Williams (2009), and Dolinská and Ambrozová (2015) describe another motivation for employing enterprise support policies, by emphasizing the importance of entrepreneurial climate (culture) for entrepreneurship and SME development. In both these approaches, space is a crucial element of the theory due to the presence of spatial externalities. In this regard, Audretsch (2015) mentions at least four types of spatial externalities: (a) network externalities stemming from social relations in space; (b) spatially embedded tacit knowledge spillovers; (c) information and knowledge externalities arising from firm exits; and (d) externalities based on the demonstration effect of successful entrepreneurs. A location close to their sources is needed to secure access to these types of externalities, resulting in a disadvantage of some – primarily peripheral – regions (Smallbone et al. 2003).

Traditionally, enterprise support policies have been understood to be a compensation for market imperfections and for a weak entrepreneurial climate (culture). In this case, policy interventions are targeted at regions where the need is greatest. However, what has attracted increasing attention over recent years is an approach that emphasizes the importance of spatial externalities for economic growth and that also prefers policy interventions targeted at regions with high development potential. These considerations may relate to the recent debate on territorial cohesion and on the interplay between balanced development and spatial competitiveness (Servillo 2010, Colomb and Santinha 2014). It is therefore of high political significance, as also indicated by the content analysis of strategic documents of the Czech Republic in the programming period 2007-2013. The territorial cohesion objectives listed in these documents relating to enterprise support policy include both supporting peripheral and supporting core regions. The relationship of the innovation-oriented SMEs and core regions is noteworthy (Table 1).

The focus of this paper is embedded in this discussion and it evaluates the spatial distribution of enterprise support interventions among Czech Republic's micro-regions, taking the territorial cohesion objectives into account. In this regard, what is analysed is the Structural Fund (hereafter referred to as SF) expenditures earmarked for the Convergence and Regional Competitiveness and Employment Objectives in the programming period 2007-2013 and also categorized as enterprise support interventions. Note the crucial importance of SF for financing the enterprise support policy in the Czech Republic in the programming period 2007-2013. The main research aim is to evaluate whether the spatial distribution of SF follows the territorial cohesion objectives specified in the strategic documents of the Czech Republic in the programming period 2007-2013, notably: (1) the competitiveness objective; (2) the objective of balanced development; and (3) the objective of coherence between regional and structural policies (Table 1). Considering these objectives, SF allocation is evaluated for two types of interventions: (a) innovation-oriented interventions; and (b) other enterprise support interventions. Finally, the importance of the absorption capacity concept for explaining the SF allocation is explored. The theoretical framework is introduced in the next section. Subsequently, materials and methods are illustrated and then empirical results presented and discussed. The last section draws the conclusions.

Table 1

Territorial cohesion objectives relating to enterprise support policy in the strategic documents of the Czech Republic (2007-2013)

Document	Territorial cohesion objectives relating to enterprise support policy
MRD CR (2006)	New business formation and growth, and new job creation, in lagging regions Entrepreneurial opportunities in rural areas R&D development in core regions and in structurally disadvantaged regions
MRD CR (2007)	Entrepreneurial opportunities in backward regions and in rural areas Emphasis on innovation-oriented SMEs in core regions Coherence between regional and structural policies
MIT CR (2006)	Reduction of regional disparities through SME development Coherence between regional and structural policies

Theoretical Framework

Our analysis is embedded in the theoretical framework of the spatial distribution of public funds. Several factors influencing the spatial distribution of public funds have been suggested in the research literature. One group of studies has concentrated their attention on the political factors

including election-specific factors (Dellmuth and Stoffel 2012, Schraff 2014, Luca and Rodriguez-Pose 2015) and politically ideological factors (Kemmerling and Bodenstein 2006, Dellmuth 2011). Another group of studies has investigated the impact of socio-economic factors on the spatial distribution of public funds (Crescenzi 2009, Blažek and Macešková 2010, Crescenzi et al. 2015, Novosák et al. 2015). Moreover, Camaioni et al. (2013), and Bonfiglio et al. (2016) have emphasized the importance of spatial interactions for explaining the spatial distribution of public funds.

This paper is interested in exploring the associations between the level of socio-economic disadvantages of regions, understood as being relevant for operating the territorial cohesion objectives as given in Table 1, and also the spatial distribution of public funds among them. The two main approaches may be distinguished in the literature when defining the socio-economic disadvantages of regions. The first approach is based on selected indicators of socio -economic regional disadvantages relating, among other factors, to human capital, unemployment, industrial structure and infrastructure endowment (Crescenzi 2009, Bouvet and Dall'Erba 2010, Crescenzi et al. 2015, Novosák et al. 2015, Janíček and Vaigel 2016). The second approach is to use socio-economically disadvantaged regions that are mostly defined artificially on the basis of political considerations (Blažek and Macešková 2010, Hájek et al. 2014). The intention of this paper is to apply both approaches.

The findings, concerning the associations between the level of socio-economic disadvantages of regions, and the spatial distribution of public funds among them, are not unanimous, and the findings depend, among other factors, on the spatial level of analysis. Crescenzi (2009), Lolos (2009), and Crescenzi et al. (2015) pointed out a positive association between the level of socio-economic disadvantages of NUTS II regions and the SF allocation among them. However, this association does not hold particularly well for the lower spatial levels. Hence, Blažek and Macešková (2010), Hájek et al. (2014), observed an even spatial pattern of public fund allocation, with limited influence of the level of socio-economic disadvantages of regions. Luca and Rodriguez-Pose (2015) noted more public funds spent in more developed regions. Nevertheless, one drawback of these studies was that the spatial distribution of public funds was not arranged thematically, despite such an arrangement providing more nuanced insights into the issue. This is another intention of this paper, to focus on analysing two specific types of enterprise support interventions: (1) innovation-oriented interventions; and (2) other enterprise support interventions.

A number of studies have associated a lower public fund allocation in less developed regions with their lower absorption capacity. The absorption capacity of regions is commonly defined as the capacity of regions to effectively and efficiently spend public funds (Tatar 2010, Iatu and Alupului 2011). Moreover, the supply and demand sides of the absorption capacity concept are distinguished. While the former relates to the institutional aspects of public fund management (Popescu 2015), the latter relates to the capacity of local actors to prepare and submit acceptable projects for financing by using public funds (Cace et al. 2009, Duran 2014). In this regard, several possible explanations are provided on why less developed regions may lag behind in their absorption capacity, including: (1) the lack of suitable projects for financing, notably in some thematic areas; (2) the lack of human capital and the lack of funds for co-financing; and (3) a weak position of less developed regions in negotiating and lobbying. It is noteworthy that Kaufmann and Wagner (2005), and Klímová and Žítek (2015) have emphasized the lower absorption capacity of less developed regions particularly for innovation-oriented interventions.

Despite the importance of the absorption capacity concept in arguing about the spatial distribution of public funds, the empirical research of this kind has been limited, particularly including studies that focus on the demand side of the absorption capacity of regions. This paper adds to the existing knowledge, following the recent theoretical approach suggested by

Table 2

Review of variables

Variable	Description
Population density (DENSITY)	The variable is defined as the number of inhabitants per square kilometre in 2007 and it is log-transformed to improve normality. The Czech Statistical Office (hereafter referred to as CSO only) was the source of information. Population density is used as a proxy of agglomeration economies.
Patenting activities (INNOVATION)	The variable is calculated as the number of patents and utility models per population aged 15-64 in the years 2002-2007 and it is log-transformed to improve normality. Note that twofold weight was given to patents. The Industrial Property Office (hereafter referred to as IPO only) was the source of information about patents and utility models, whilst data about population was taken from the CSO. The indicator of innovation was included due to the importance of innovations as a means of enhancing regional competitiveness.
Tertiary education (TERTIARY)	The variable is defined as the proportion of inhabitants with tertiary education for people aged 15 and over and it is log-transformed to improve normality. The variable is calculated as the mean of the years 2001 and 2011. The choice of these years is dictated by the data availability from the Census. Moreover, this strategy is expected to interpolate the situation at the beginning of the programming period 2007-2013. The CSO was the source of information. It is anticipated that human capital facilitates knowledge and information spillovers – one of the frequently mentioned characteristics of agglomeration economies.
Entrepreneurial density (ENTREP)	The variable is defined as the share of employers and self-employed people in the economically active population. The variable is again calculated as the mean of the years 2001 and 2011. The CSO was the source of information. The density of entrepreneurs is understood as a proxy of entrepreneurial climate (culture).
Unemployment (UNEMPLOY)	The variable is calculated as the proportion of registered unemployed people for the population aged 15-64 in the years 2005-2007 and it is log-transformed to improve normality. The data were taken from the CSO. Unemployment was included to measure the need for job creation.
Industrial structure (INDUSTRY)	The variable reflects the industrial structure of different regions, by calculating the similarity to the 'most advanced" industrial structure of Prague. In this regard, the shares of 11 industries in employment of each micro-region were computed. These shares were then used to calculate the difference between each micro-region and Prague for each industry. Finally, the differences corresponding to particular micro-regions were summed. Higher figures mean higher degrees of similarity. The variable is again calculated as the mean of the years 2001 and 2011. The CSO was the source of information. The variable was included to consider the advancement of industrial structure, an important element of regional competitiveness.

Hájek et al. (2017), who expounded the demand side of the absorption capacity of regions in

terms of the fundamental elements of the concept: (1) the capacity of actors to prepare and submit projects; (2) the capacity of actors to prepare and submit financially large projects; and (3) the capacity of actors to prepare and submit acceptable projects for financing by public funds. The question is whether less developed regions lag behind in the number of prepared and submitted projects, and/or in the financial size of prepared and submitted projects, and/or in the success rate of prepared and submitted projects. This is the third intention of this paper and its main innovative feature.

Methodology

To fulfil the goal of this paper, the following methodology was employed: firstly, socio-economically disadvantaged regions were defined using the two above-mentioned approaches. The first approach was based on the indicators of socio-economic disadvantages of regions which were chosen by the traditional goals of enterprise support policies relating to competitiveness and job creation (Arshed et al. 2014, Dočekalová et al. 2015, Vega and Chiasson 2015). Moreover, the concepts of market imperfections and entrepreneurial culture (climate) were taken into account. Hence, six variables of socio-economic regional disadvantages were defined and these were entered into the principal component analysis (PCA) to generate uncorrelated components for the subsequent cluster analysis. Table 2 reviews the variables. Note that all the variables relate to: (1) the years preceding the start of the programming period 2007-2013; and (2) the 206 territories of the so-called administrative districts of municipalities with extended powers (hereafter referred to as micro-regions).

PCA was used to simplify the data structure by reducing the number of variables into a smaller number of orthogonal components. Note that the Kaiser-Meyer-Olkin measure of sampling adequacy confirmed the appropriateness of PCA (KMO > 0.60 as suggested by Tabachnick and Fidell 2007). The PCA procedure indicated that two components were extracted on the basis of the Kaiser criterion and on the basis of their theoretical underpinnings, and more than 70% of variance was explained by the two components. Table 3 reproduces the rotated component matrix, providing information on the component loadings of each variable. The two components are interpreted as representing: (1) the strength of agglomeration economies; and (2) the quality of entrepreneurial climate (culture). Moreover, the first component relates more to the competitiveness goal of enterprise support policies, whilst the second component relates more to the job creation goal of enterprise support policies. Hence, the two extracted components have an appealing interpretation and were used to define socio-economically disadvantaged micro-regions on the basis of cluster analysis.

Table 3

Rotated component matrix (varimax rotation)

Variable	Component 1	Component 2
DENSITY	0.857	-0.268
INNOVATION	0.517	0.450
TERTIARY	0.780	0.452
ENTREP	0.146	0.829
UNEMPLOY	-0.008	-0.884
INDUSTRY	0.787	0.176

Source: Own elaboration based on the CSO (2002, 2008, 2012), and the IPO (2017)

The K-means clustering method was applied in order to classify the micro-regions into one of five categories (see Meyers et al. 2013 for the advantages of this method). The most appropriate number of clusters was determined by the Variance Ratio Criterion (Calinski and

Harabasz 1974) and by the conceptual fit. Table 4 shows the final cluster centres for the five-cluster solution. See also Fig. 1, and the clusters may be interpreted in the following way: the first cluster includes the micro-regions characterized by the highest values of both agglomeration economies and the entrepreneurial climate (culture). Generally, these are the micro-regions of the main urban centres and their surroundings whose development potential is very high. Cluster 4 micro-regions also form urban agglomerations, but these are traditional industrial agglomerations of north-west Bohemia and Moravia-Silesia suffering from industrial decline and unemployment. The fifth cluster includes the micro-regions characterized by the lowest values of both agglomeration economies and entrepreneurial climate (culture). These are rather peripheral micro-regions, mainly located in the border areas. The remaining two clusters are positioned somewhere between the extremes of clusters 1, 4 and 5. Overall, the cluster 5 micro-regions may be regarded as socio-economically disadvantaged regions, whilst the cluster 1 micro-regions may be regarded as core regions. The cluster 4 micro-regions have a specific position of being both socio-economically disadvantaged regions and core regions.

Table 4

Final cluster centres (N – number of territorial units classified into the cluster)

Components	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5
Component 1	2.00	0.35	-0.57	1.64	-0.61
Component 2	1.34	0.01	0.71	-1.86	-0.87
N	*15*	*57*	*69*	*13*	*52*

Source: Own elaboration based on the CSO (2002, 2008, 2012), and the IPO (2017)

The second approach to define socio-economically disadvantaged regions was based on the Czech Government resolutions No. 829/2006 and No. 141/2010, that proclaimed the government's commitment to provide special assistance to selected disadvantaged micro-regions in the Czech Republic. For the purpose of this paper, the micro-regions that were selected for both resolutions are taken to be socio-economically disadvantaged regions. Table 5 points out a close relationship between the both approaches for defining socio-economically disadvantaged regions; however this relationship is far from perfect.

The spatial distribution of SF was evaluated regarding the categories of micro-regions, as

Table 5

Number of micro-regions; the relationship between the two approaches for defining socio-economically disadvantaged regions

Socio-economically disadvantaged regions	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5
Yes*	0	14	1	10	31
No*	15	43	68	3	21

*According to Czech Government resolutions No. 829/2006 and No. 141/2010

Source: own elaboration based on the CSO (2002, 2008, 2012), the IPO (2017), and Czech Government resolutions No. 829/2006 and No. 141/2010

defined in the above-mentioned approaches. The evaluation was based on all SF interventions that were supported either from the Convergence Objective or from the Regional

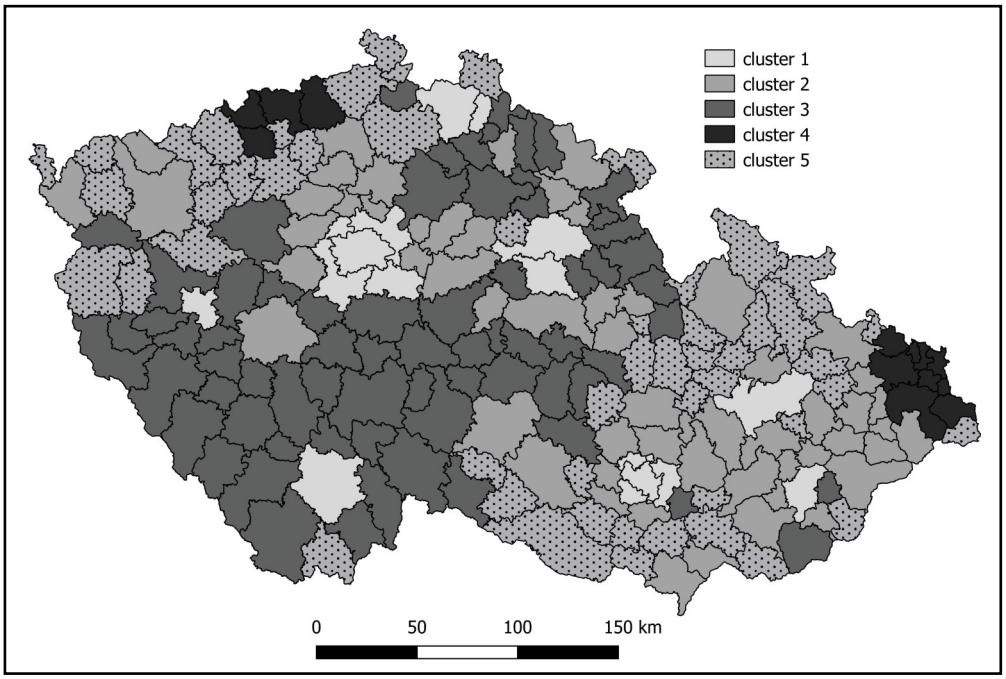

Fig.1 - **Clusters of micro-regions – spatial pattern**
Source: Own elaboration based on the CSO (2002, 2008, 2012), and the IPO (2017)

defined in the above-mentioned approaches. The evaluation was based on all SF interventions that were supported either from the Convergence Objective or from the Regional Competitiveness and Employment Objective in the programming period 2007-2013. Also, these interventions were categorized as enterprise support interventions. In this way, SF interventions from four thematic operational programmes (hereafter referred to as TOPs) and nine regional operational programmes (hereafter referred to as ROPs) were included in subsequent analyses, particularly:

- TOP Enterprise and Innovation – SF interventions focusing on innovations, new business formation, firm growth, the entrepreneurial environment, enterprise support services, and energy efficiency in enterprises,
- TOP Human Resources and Employment – SF interventions focusing on human resource development in enterprises,
- TOP Research and Development for Innovations – SF interventions focusing on research, development and innovations in enterprises,
- TOP Environment – SF interventions focusing on environmental risk reduction,
- ROP Central Bohemia, ROP Central Moravia, ROP Moravia-Silesia, ROP North-East, ROP North-West, ROP South-East, and ROP South-West – SF interventions especially focusing on tourism development,
- ROP Prague-Competitiveness and ROP Prague-Adaptability – SF interventions focusing on innovations, enterprises and the knowledge economy.

Note that apart from TOP Enterprise and Innovation, only SF interventions carried out by private-sector beneficiaries were included in subsequent analyses. Additionally, SF interventions were divided into two types: (1) innovation-oriented interventions (hereafter referred to as type 1 interventions); and (2) other enterprise support interventions (e.g., new business formation, firm growth, entrepreneurial environment, enterprise support services, human resource development in enterprises, energy efficiency in enterprises, and tourism development; hereafter referred to as the type 2 interventions). The spatial distribution of SF was then analysed: (1) for all interventions; (2) for type 1 interventions only; and (3) for type 2 interventions only.

The overall spatial pattern of SF allocation is influenced by the spatial concentration of SF allocation for particular thematic areas. SF allocation for type 2 interventions may particularly be expected to indicate more even spatial distribution than SF allocation for type 1 interventions. Therefore, the position of lagging regions is assumed to be better for type 2 interventions. The fact that Prague was ineligible to draw funds from the most generous Convergence Objective is of particular importance here. SF allocation for cluster 1 micro-regions should therefore be influenced by a lower SF allocation to Prague, notably for type 2 interventions, because SF interventions from the two Prague ROPs were mostly categorized as type 1 interventions. However, it is worth noting that the strength of the “Prague effect” may be weakened by a higher SF allocation to neighbouring cluster 1 micro-regions (Fig. 1), which are eligible for financing from the Convergence Objective.

The evaluation proceeded as follows: firstly, the SF allocation, standardized by the number of inhabitants to consider the different sizes of micro-regions, was calculated for each of the 206 micro-regions. The mean values of SF allocation for each micro-region was then calculated for each category of micro-regions, and then compared to one another, using appropriate methods of descriptive and inferential statistics. The statistical significance of mean differences was determined using the independent samples t-test in cases of socio-economically disadvantaged regions, defined on the basis of the two Czech Government resolutions, and using one-way ANOVA, followed by post-hoc comparisons of means by Bonferroni's method in the cases of the five clusters of micro-regions. Note that the SF allocation per capita variable was log-transformed to fulfil the assumption of normality for statistical tests. The sources of information were the official data from June 2016, published by the Ministry of Regional Development of the Czech Republic (hereafter referred to as the MRD CR), the Ministry of Industry and Trade of the Czech Republic (hereafter referred to as the MIT CR) and the Ministry of Labour and Social Affairs of the Czech Republic (hereafter referred to as the MLSA CR).

The absorption capacity of the different categories of micro-regions was evaluated, using the theoretical approach suggested by Hájek et al. (2017). The three fundamental elements of the absorption capacity concept were operationalized in the following way: (1) the capacity of actors in a micro-region to prepare and submit projects, shown as the number of supported and unsupported interventions per 10 000 inhabitants of the micro-region (hereafter referred to as NUMBER OF PROJECTS); (2) the capacity of actors in a micro-region to prepare and submit financially large projects measured as the average size of both, supported and unsupported interventions that were submitted for realization in the micro-region (hereafter referred to as PROJECT SIZE); and (3) the capacity of actors in a micro-region to prepare and submit acceptable projects for financing by using public funds, shown as the success rate of interventions submitted for realization in the micro-region (hereafter referred to as SUCCESS RATE). Once again, the mean values of the three variables of the absorption capacity concept per micro-region were calculated for each category of micro-regions, and also for the three types of evaluation: (1) for all interventions; (2) for type 1 interventions only; and (3) for type 2 interventions only. Then, the micro-region values were ranked into terciles and the tercile distribution of micro-regions for each category of micro-regions was obtained. Finally, the differences in these distributions between the categories of micro-regions were discussed,

considering their relationship to SF allocation. The sources of information remained the same as for the SF allocation per inhabitant variable.

Results and Discussion

This evaluation is based on more than 32 600 SF interventions and on more than CZK 161 billion. Almost 50% of SF interventions and more than 58% of financial allocation were categorized as type 1 interventions.

Table 6 provides initial insight into the distribution of SF among the defined categories of micro-regions. The mean values are reported: (1) for all interventions; (2) for type 1 interventions; and (3) for type 2 interventions. Inspection of Table 6 reveals that relatively more SF is allocated to cluster 1 and to cluster 2 micro-regions, whereas cluster 3 and cluster 4 micro-regions indicate relatively lower SF allocation. These findings are similar for both types of interventions, except that the position of cluster 1 micro-regions is weakened when only considering type 2 interventions. The "Prague effect" partially explains this fact. Concerning socio-economically disadvantaged regions defined by the Czech Government resolutions, the total SF allocation is almost the same for both types of micro-regions. However, socio-economically disadvantaged micro-regions indicate higher SF allocation for type 1 interventions, but lower SF allocation for type 2 interventions. Additionally, as shown by the independent samples t-test results, the mean differences are significant at the 0.01 level for type 1 interventions (p=0.008) and at the 0.05 level for type 2 interventions (p=0.023) respectively.
One-way ANOVA followed by post-hoc Bonferroni tests expounded the initial findings by

Table 6

SF allocation per inhabitant (in CZK) – mean value per micro-region (standard deviations in parentheses)

Type of evaluation	Clusters					Resolutions*	
	1	2	3	4	5	Yes	No
SF allocation – all interventions	17 732 (6 805)	17 965 (8 462)	13 470 (6 311)	11 128 (5 883)	16 099 (9 835)	15 658 (6 737)	15 496 (8 666)
SF allocation – type 1 inter-ventions	11 808 (5 748)	10 347 (5 029)	6 838 (4 889)	6 870 (4 630)	9 028 (5 398)	10 141 (5 278)	8 198 (5 277)
SF allocation – type 2 inter-ventions	5 924 (1 971)	7 617 (6 143)	6 632 (3 830)	4 257 (2 233)	7 070 (7 926)	5 517 (3 748)	7 298 (6 167)

*Socio-economically disadvantaged regions according to Czech Government resolutions No. 829/2006 and No. 141/2010.

Source: own elaboration based on the CSO (2002, 2008, 2012), the IPO (2017), the MIT CR, the MLSA CR, the MRD CR (2017), and Czech Government resolutions No. 829/2006 and No. 141/2010

assessing pairwise multiple comparisons of cluster means, and also by examining the significance of mean differences. Just to recap, log-transformed variables were used to fulfil the assumption of normality. The results appeared to be significant at the 0.01 and 0.05 levels in two situations. Firstly, the SF allocation mean for all interventions is significantly higher in

cluster 2 micro-regions than in cluster 3 (p=0.023) micro-regions, and cluster 4 (p=0.014) micro -regions. Secondly, the SF allocation mean for type 1 interventions is significantly lower in cluster 3 micro-regions than in cluster 1 (p=0.012) micro-regions and cluster 2 (p=0.001) micro-regions.

The above-mentioned statistics reveal several interesting findings. Socio-economically disadvantaged regions do not generally have a high SF allocation per inhabitant, except for the two Czech Government resolutions and also for the innovation-oriented interventions (type 1). This position of socio-economically disadvantaged regions is particularly obvious in cluster 4 micro-regions that include traditional industrial agglomerations, which suffer from industrial decline, that have a poor entrepreneurial climate (culture) and which have significant unemployment. The low SF allocation per inhabitant to cluster 4 micro-regions is in sharp contrast to cluster 1 micro-regions that include agglomerations with a strong entrepreneurial climate (culture) and that indicate relatively high SF allocation per inhabitant, especially for innovation-oriented interventions. A relatively low SF allocation is observed also in the micro-regions, characterized by the absence of strong agglomeration economies and by a relatively strong entrepreneurial climate (culture) and low unemployment (cluster 3). In the absence of strong agglomeration economies, a better entrepreneurial climate and low unemployment do not lead to a higher SF allocation, as indicated by the comparison of cluster 3 micro-regions and cluster 5 micro-regions.

The question is why some categories of micro-regions perform better in SF allocation per inhabitant than others. The variables of the absorption capacity concept are used to partially explain this question. In this regard, Tables 7, 8 and 9 provide the tercile distribution of micro-regions for each variable of the absorption capacity concept and for each category of micro-regions. The following findings are worth noting:

- Cluster 1 micro-regions indicate a relatively high number of projects prepared and submitted for financing from SF. Moreover, these projects tend to be financially demanding, particularly if they are innovation-oriented interventions. However, cluster 1 micro-regions are relatively less successful in projects being approved for financing. This is partially explained by a lower acceptance rate of projects that were submitted for financing in Prague.
- It seems to be a problem that there are a relatively low number of projects prepared and submitted for financing from SF for cluster 3 micro-regions, particularly for innovation-oriented interventions. Moreover, these projects are relatively less successful in the approval procedure. The opposite is true for cluster 5 micro-regions, which explains the differences in SF allocation per inhabitant to the two clusters of micro-regions. Note a relatively smaller size of projects prepared and submitted in cluster 5 micro-regions.
- There are a relatively low number of projects prepared and submitted for financing from SF for cluster 4 micro-regions, particularly for type 2 interventions, which seems to be a problem. Hence, the low capacity to prepare and submit projects for financing from SF may be regarded as the main source of lower SF allocation in cluster 4 micro-regions.
- The micro-regions, categorized as socio-economically disadvantaged regions according to Czech Government resolutions, tend to prepare and submit more projects for type 1 interventions but not for type 2 interventions. Additionally, these micro-regions are slightly more successful in the approval procedure; however, the size of prepared and submitted projects is financially less demanding in this category of micro-regions.

Overall, the findings provide evidence on the relationship between SF allocation and the absorption capacity concept. A relatively low number of projects prepared and submitted for financing from SF seem to be crucial for understanding the relatively low SF allocation for

cluster 3 and cluster 4 micro-regions.

The main research question of this paper is whether the spatial distribution of SF follows the

Table 7

NUMBER OF PROJECTS – the share of micro-regions in a category falling in the bottom, middle and top terciles of the variable

Evaluation, category	All interventions			Type 1 interventions			Type 2 interventions		
	Bot-tom	Mid-dle	Top	Bot-tom	Mid-dle	Top	Bot-tom	Mid-dle	Top
Clusters – cluster 1	7%	53%	40%	20%	33%	47%	0%	33%	67%
Clusters – cluster 2	19%	46%	35%	21%	33%	46%	26%	42%	32%
Clusters – cluster 3	45%	25%	30%	56%	28%	16%	32%	27%	41%
Clusters – cluster 4	69%	23%	8%	39%	46%	15%	61%	31%	8%
Clusters – cluster 5	33%	29%	38%	19%	39%	42%	46%	33%	21%
Resolutions* - Yes	25%	32%	43%	11%	34%	55%	48%	36%	16%
Resolutions* - No	37%	34%	29%	42%	33%	25%	28%	33%	39%

*Socio-economically disadvantaged regions according to Czech Government resolutions No. 829/2006 and No. 141/2010

Source: own elaboration based on the CSO (2002, 2008, 2012), the IPO (2017), the MIT CR, the MLSA CR, the MRD CR, and Czech Government resolutions No. 829/2006 and No. 141/2010

territorial cohesion objectives specified in the strategic documents of the Czech Republic in the programming period 2007-2013 (Table 1). The empirical results of this section enable us to obtain answers. Concerning the research and development, and also the innovation-oriented objectives, some evidence is provided suggesting a higher SF allocation for innovation-oriented interventions to core micro-regions of the Czech Republic (cluster 1). Additionally, the capacity to prepare and submit a high number of large innovation-oriented projects is high in cluster 1 micro-regions. However, this is not the case of the structurally disadvantaged agglomerations (cluster 4 micro-regions) that particularly suffer from a relatively low number of submitted projects. Concerning the objectives related to the support of socio-economically disadvantaged regions, the findings are ambivalent. Nevertheless, the evidence does not seem to support the arguments that socio-economically disadvantaged micro-regions receive more SF. Consequently, doubts are also cast on the coherence between regional and structural policies.

There may be several practical implications of these research results. Considering the spatial distribution of SF allocation among the Czech Republic's micro-regions, there is a rather limited evidence supporting the territorial cohesion objectives specified in the strategic documents of the Czech Republic in the 2007-2013 programming period. The spatial concentration of SF allocation seems to be insufficient, especially in terms of the balanced development objective. In this regard, it is appropriate to consider strengthening the importance of territorially based instruments (e.g., local action groups). This is particularly relevant for micro-regions characterised by low absorption capacity. The link between core regions and innovation-oriented interventions is notably more apparent. However, Prague's ineligibility for financing

Table 8

PROJECT SIZE – the share of micro-regions in a category falling in the bottom, middle and top terciles of the variable

Evaluation, category	All interventions			Type 1 interventions			Type 2 interventions		
	Bottom	Middle	Top	Bottom	Middle	Top	Bottom	Middle	Top
Clusters – cluster 1	13%	67%	20%	7%	27%	66%	47%	53%	0%
Clusters – cluster 2	37%	30%	33%	30%	39%	31%	41%	26%	33%
Clusters – cluster 3	28%	36%	38%	36%	28%	36%	23%	38%	39%
Clusters – cluster 4	31%	31%	38%	31%	38%	31%	38%	31%	31%
Clusters – cluster 5	44%	25%	31%	42%	37%	21%	34%	31%	35%
Resolutions* - Yes	43%	30%	27%	45%	37%	18%	38%	39%	23%
Resolutions* - No	30%	35%	35%	29%	32%	39%	32%	31%	37%

*Socio-economically disadvantaged regions according to Czech Government resolutions No. 829/2006 and No. 141/2010

Source: own elaboration based on the CSO (2002, 2008, 2012), the IPO (2017), the MIT CR, the MLSA CR, the MRD CR, and Czech Government resolutions No. 829/2006 and No. 141/2010

from the Convergence Objective undermines the strength of this link. Additionally, the results suggest focusing more on the entrepreneurial climate of traditional industrial agglomerations regarding the low absorption capacity of these micro-regions. Territorially based instruments (e.g., integrated territorial instruments) may also be regarded as relevant in this case.

The research results further indicate that SF allocation differs depending on the SF intervention type used. Innovation-oriented interventions favour core regions, while other enterprise support interventions are more important for peripheral micro-regions. Consequently, the SF allocation split between the two types of SF interventions influences which micro-regions receive more SF. In this way, the research results are useful for scenario building as well as for Territorial Impact Assessment (hereafter referred to as TIA) methodologies. Two additional points are worth noting. Firstly, there are sizeable differences in the research results between the two approaches defining the socio-economically disadvantaged regions. This indicates the relevance of politics here. Secondly, the absorption capacity concept is crucially important in explaining the SF allocation, and this substantiates various measures which strengthen the absorption capacity of micro-regions. Overall, these research results emphasize the need to consider the complex relations between the territorial cohesion objectives and the enterprise support policies.

Conclusions

The goal of this paper is to assess whether the spatial distribution of SF for enterprise support interventions follows the relevant territorial cohesion objectives specified in the strategic documents of the Czech Republic in the programming period 2007-2013. Overall, the empirical

Table 9

SUCCESS RATE – the share of micro-regions in a category falling in the bottom, middle and top terciles of the variable

Evaluation, category	All interventions			Type 1 interventions			Type 2 interventions		
	Bottom	Middle	Top	Bottom	Middle	Top	Bottom	Middle	Top
Clusters – cluster 1	47%	33%	20%	27%	60%	13%	33%	53%	14 %
Clusters – cluster 2	19%	35%	46%	23%	40%	37%	23%	37%	40 %
Clusters – cluster 3	46%	25%	29%	41%	20%	39%	41%	26%	33 %
Clusters – cluster 4	31%	23%	46%	39%	23%	38%	31%	31%	38 %
Clusters – cluster 5	29%	46%	25%	37%	38%	25%	36%	35%	29 %
Resolutions* - Yes	27%	27%	46%	34%	33%	33%	34%	28%	38 %
Resolutions* - No	36%	36%	28%	34%	34%	32%	34%	35%	31 %

*Socio-economically disadvantaged regions according to Czech Government resolutions No. 829/2006 and No. 141/2010

Source: own elaboration based on the CSO (2002, 2008, 2012), the IPO (2017), the MIT CR, the MLSA CR, the MRD CR, and Czech Government resolutions No. 829/2006 and No. 141/2010

results provide mixed evidence.

The competitiveness objective seems to be supported by a relatively high SF allocation to the micro-regions, characterized by strong agglomeration economies and entrepreneurial climate (culture). This may be particularly observed when innovation-oriented interventions are evaluated. Moreover, the absorption capacity of these micro-regions appears to be relatively high, indicating the potential to strengthen the importance of the competitiveness objective. The empirical results give, on the contrary, little support to the objective of balanced development. Socio-economically disadvantaged micro-regions do not receive a higher SF allocation. Additionally, urban agglomerations, suffering from industrial decline, high unemployment and weak entrepreneurial climate (culture) even lag behind in SF allocation due to their low capacity to prepare and submit a relatively high number of projects for SF financing. However, an exception may be noticed. The socio-economically disadvantaged micro-regions defined on the basis of the Czech Government resolutions have a higher SF allocation for innovation-oriented interventions. Hence, a low absorption capacity of socio-economically disadvantaged micro-regions particularly for innovation-oriented interventions is not confirmed (compare this with Kaufmann and Wagner 2005, Klímová and Žítek 2015).

The empirical results of this paper have several policy implications. The results provide limited evidence to support the territorial cohesion objectives specified in the strategic documents of the Czech Republic in the programming period 2007-2013. This is due to the low spatial concentration of SF allocation. Therefore, the first policy recommendation is to consider using territorially based instruments to increase the spatial concentration of SF allocation in

accordance with the territorial cohesion objectives. Furthermore, the spatial distributions of SF were found to differ between innovation-oriented interventions and other enterprise support interventions. Therefore, the thematic focus of enterprise support interventions are relevant in evaluating territorial cohesion objectives, and the coherence between regional and structural policies may be increased when considering the SF allocation split between particular thematic areas. This approach may be also relevant for scenario building and for TIA methodologies. Additionally, there is a broad spread of results due to the different approaches to define socio-economically disadvantaged regions. It seems that a more nuanced approach to the definition and measurement of socio-economic regional disadvantages may have fruitful implications for the territorial cohesion objectives. Finally, it was shown that the SF absorption concept crucially influences the SF allocation in micro-regions. The last policy recommendation here emphasises the steps focusing on strengthening the absorption capacity of micro-regions. The territorial cohesion objectives have a complex nature which must be considered.

The paper also provides a methodological framework for evaluating the relations between the public policy and the territorial cohesion objectives. There are, however, some research limitations in this regard. Firstly, the choice of variables regarding the socio-economic disadvantages, which is of great importance for the results, is limited by the lack of data at micro-regional level. It is therefore desirable to search for other ways to process information on the socio-economic disadvantages of micro-regions. Secondly, this paper deals with the SF allocation but it does not deal with the link between the SF allocation and the output/outcome indicators. Nevertheless, this particular link may be crucial for recognizing the territorial impacts of public policies. Thirdly, there is a vast debate about the suitable spatial level of similar analyses. The strengths and weaknesses of two types of regions are also discussed, notably functional regions and administrative regions. Therefore, the results ought to be compared while giving regard to different types of spatial units. These limitations are also suggestions for further research.

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Correspondence: Faculty of Management and Economics, Tomas Bata University in Zlin, Mostní 5139, 760 01 Zlin, Czech Republic.

Email: novosak@fame.utb.cz

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IN-MOVERS' HOUSING CHOICE AND GENTRIFICATION IN SEOUL

Seong-Kyu **HA***, *Ki-Hyun* **KWON****

*Chung-Ang University, Seoul, Korea; **The Seoul Institute, Korea

Abstract: The Seoul metropolitan government has focused on the expansion of the housing supply to address housing shortage through housing and urban redevelopment programs. The introduction of urban redevelopment programs has resulted in significant improvements in both the quality and quantity of housing in Seoul. However, urban redevelopment programs have produced gentrification and have contributed to profits for both property owners and developers. It is necessary to identify who is moving into gentrifying neighbourhoods in Seoul and why they engage in gentrification. In order to contribute to a more in-depth analysis, we explore in-movers' socio-economic characteristics and their residential mobility. These questions are analysed using the Korea Housing Survey data. The findings indicate that the majority of in-movers upward homeowners, who are more educated, have a higher income, and are relatively younger. In the Korean urban context, these in-movers can be identified as gentrifiers and key figures in urban and housing regeneration programs.

Key Words: *in-movers, housing choice, gentrification, Seoul.*

Introduction

Housing shortage has been one of the most serious problems that Korean society has faced since its rapid industrialization and urbanization. The government has tried to solve the problem of housing shortages in urban areas through urban and housing regeneration projects. In the West, older, more mature cities had experienced the loss of population and jobs and the deterioration of inner-city housing since the 1960s. They tried to revitalize their inner city areas through the government's aggressive projects to attract the middle class. These projects were called 'gentrification' because they could improve the physical environment and restore the vitality of the older inner cities. Gentrification has been used in many countries as a policy measure due to its positive aspects (Lees and Ley 2008, Kyung and Kim 2011).

In contrast, as the middle class moved to the inner-city where low-income families lived, their dwelling stability got worse. Therefore, gentrification has often criticized because it involves the displacement of poor residents from their city neighbourhoods (Lee and Shim 2009, Mckinnish et al. 2010). Since gentrification has its advantages and disadvantages, it could be promoted or suppressed depending on its connection with the institution or policy. Therefore, gentrification could be induced or adjusted depending on urban planners or policy makers.

It is not appropriate that the generalized theory of gentrification is applied in every area. This is because gentrification involves not only improving physical environments, but also the in-movement of certain types of households. In accordance with each region's unique socio-economic context and the role of each regional resident, the impacts of gentrification have varied significantly (Kennedy and Leonard 2001). Therefore, it is very important to understand the characteristics of the in-movers who have moved into the redevelopment areas as the promoters of gentrification.

This paper focuses on the in-movers into regeneration areas in South Korean urban contexts by closely examining their socio-economic and housing characteristics. The objective of this paper is, therefore, twofold: 1) to analyse the in-movers' socio-economic and housing characteristics compared with the original residents in regeneration communities, and 2) to investigate in-movers in detail. We shall be interested to see whether in-movers (new comers) foster gentrification in Seoul and what the main reasons for residential mobility are.

This paper is divided into four sections. The first section introduced some characteristic of housing problems and urban renewals in Seoul. The second section reviews the theoretical arguments and existing literature regarding gentrification and residential mobility. The third section presents the result of analysis on in-movers' characteristics in gentrifying neighborhoods based on three case study areas. The fourth section is focused on policy implications and conclusions.

Housing Shortages and Urban Renewal in Seoul

Prior to the 1960s, South Korea (hereafter Korea) lacked a clear housing policy regarding urban land-use regulation to control unplanned development and substandard settlements. Since the late 1960s, absolute shortages and high prices have been perceived as the two most serious housing problems in Korea. In order to address the acute housing shortage, numerous policies have been proposed. The government has implemented plans for new housing initiatives primarily through two approaches: new town development and urban redevelopment. Housing is a prime vehicle for delivering effective counter cyclical interventions with a wide range of economic and social benefits. Studies show that increasing the supply of new homes can produce major economic benefits, helping to drive economic recovery and competitive cities (Jones and Yokoyama 2008, UN Habitat 2008, Griffith and Jefferys 2013).

To address the rising housing demand, the government developed vacant areas, by depleting the most easily developed green field sites in suburban areas. In the 1980s, the government established a large-scale, five-year housing plan with the specific goal of supplying two million housing units. The government unveiled the first phase of this new town development plan, which aimed to develop five new towns in the area around Seoul. The construction of new towns contributed to the stabilization of the housing market by the mid-1990s. However, despite government efforts to increase available housing, housing prices continued to escalate due to the growing urban population, lack of housing, and real estate speculation.

Korea's overall housing conditions have improved substantially since the beginning of the 1980s, as can be seen from the key indicators summarized in Table 1. Overcrowding, as well as the quality of dwellings and facilities, has improved remarkably. However, the heavy subsidies generated through price controls on new housing were enjoyed primarily by the middle class. Those who were fortunate enough to purchase new apartments received a substantial capital gain. Despite many measures to improve housing quality over the past several decades, housing has remained a persistent and divisive socio-economic issue in Korea. The government recognized that new town development and market intervention were insufficient to address housing shortage problems, particularly in the Seoul metropolitan area. Policy authorities realized that policy goals could be achieved through a combination of new town development and urban regeneration projects. The urban and housing regeneration projects attempt to demolish substandard residential areas and build new houses on the redeveloped sites. Since the early 1980s, the most important means for the provision of new houses in inner city areas have been urban and housing regeneration programs.

The improvement of low-income families' quality of life was informed by a global policy trend through urban and housing regeneration (Lovering 2007). In many national reports, reference is made to housing policies and physical interventions (urban regeneration) as national urban

policies designed to combat socio-economic issues. In a growing number of countries, physical renewal schemes are now accompanied by social and/or economic policies. The European URBAN-program has inspired the introduction of a more comprehensive approach to urban renewal plans (Van den Berg et al. 2014). In Korea, a critical policy issue is how to improve housing conditions for low-income families and increase the quality of residential life through regeneration projects.

Table 1

Housing conditions in Korea

	1980	1990	2000	2010
Housing supply ratio (%)[1)]	71.2	72.4	94.1	101.9
Dwellings per 1000 inhabitants	142.1	169.5	248.7	363.8
Per capita floor space(㎡)	10.1	13.8	20.2	28.48
House price-to-income ratio (Seoul)	N/A	N/A (9.2)	5.0 (7.9)	6.6 (9.4)

1) *Supply ratio* = $\frac{the\ number\ of\ housing\ units}{the\ number\ of\ households} \times 100$

Source: Kookmin Bank (2014), Korea National Statistical Bureau (2012), Korea National Housing Corporation (2006).

According to the Act on Maintenance and Improvement of Urban Areas and Dwelling Conditions for Residents, a housing redevelopment project is defined as a project to improve residential environments in an area whose rearrangement basic facilities are inferior and where worn and inferior structures are concentrated (Article 1). In this study, urban and housing regeneration in Korea can be classified into three main projects: (1) urban redevelopment, (2) 'new towns,' and (3) housing reconstruction. Since the early 1980s, the most popular redevelopment projects were Joint Redevelopment Projects (JRP). In JRPs, the government designates clearance areas and authorizes building removal, large construction companies provide capital, and homeowners form an association, which contracts with the construction company and takes responsibility for the project. A redevelopment association is created in order to obtain the required approval by two-thirds of the homeowners.

The second regeneration project, a new type of urban renewal project that emerged in the 2000s, is the 'new towns' in Seoul. The 'new town in town' scheme was first introduced in 2002 by the former Seoul mayor, Lee Myung-bak, when Seoul's metropolitan government changed their urban renewal policy and renamed it the 'New town' project. This project was introduced to narrow the gap between the rich in south Seoul and the poor in north Seoul and to improve the deteriorated urban environment, especially in northern Seoul. The new town project attempted to improve underprivileged housing areas, turning them into high-quality residential environments by improving the infrastructure and the retraction of various urban functions.

The third type of regeneration is represented by the housing reconstruction projects, which were implemented to improve residential environments in an area wherein the rearrangement basis facilities are good, but where worn and inferior structures exist. Housing reconstruction projects are based on the methods of building and supplying the housing and the accessory and welfare facilities under the management and disposal plans authorized under Article 48 (Act on the Maintenance and Improvement of Urban Areas and Dwelling Conditions for Residents) within the rearrangement zone. A housing reconstruction project may be executed by a partnership or jointly with the city authority or the Housing Corporation, by obtaining the consent of the majority of the partnership members.

Gentrification and Residential Mobility

Building and investing in downtown areas is not a new concept in either Western countries or Korea. Freeman (2005) argued that gentrification is one of the most controversial issues in urban areas. Research on gentrification in Western countries, particularly the United States, seems to be dominated by the question of resident displacement (Mulroy 2004, Walsh and White 2008, Huyser and Meerman 2014). In Korea, the question of resident displacement was also a research area of interest and the most crucial policy issue involved with urban redevelopment and gentrification (Kim 2007, Lee and Shim 2009, Park and Nam 2016). This study is focused more on who moves into gentrifying neighbourhoods rather than just who moves out. In order to determine in-movers' characteristics, we have done a comparison between in-movers and original residents in redeveloped communities.

One socio-political consequence of urban regeneration projects has been the redevelopment-induced gentrification of low-income neighbourhoods. External property-based interests in the renewal project areas enabled the full exploitation of development opportunities at the expense of poor owner-occupiers and tenants. Urban regeneration represents the physical, socio-economic, and environmental changes in a city and a community. However, according to the Urban Redevelopment Act, Korean urban renewal policies focused primarily on the improvement of residential physical environments rather than of socio-economic factors.

In the West, gentrification was initially seen as the urban class change process of the replacement of the original working class occupiers by middle class homebuyers (Smith 1979, Beauregard 1986). However, after the late 1970s, gentrification was considered in a much broader context. The role of the state was downplayed, and more emphasis was given to opportunities for the private sector to contribute to gentrification, which lead to greater partnership -based forms of governance (Smith and Williams 1986, Duffy and Hutchinson 1997, Oatley 1998, Conway 2000). Since the mid-1990s, the concept of gentrification has broadened, and the scale of gentrification has expanded greatly. The idea of a more inclusive approach to local economic development and regeneration began to evolve. The state became an enabler that sought to create favourable conditions for private sector investment in urban areas (Hackworth 2002, McCarthy and Prudham 2004).

In Korea, particularly in the capital city of Seoul, the government has focused on the expansion of the housing supply to address the housing shortage through housing and urban redevelopment programs. The introduction of urban redevelopment programs has resulted in significant improvements in both the quality and quantity of housing in Seoul. However, according to previous studies, only approximately 40% of property owners and 10% of tenants returned to redeveloped areas (SDI and KOCER 2003). Urban redevelopment programs have produced gentrification and have contributed considerably to the profits of both property owners and developers. At this stage, it is necessary to identify gentrifiers and why they engage in gentrification. Some groups support the revitalization of old and deteriorated low-income residential areas while others criticize the displacement of low-income households. Despite the importance of gentrification in urban areas as a policy issue, there is a shortage of empirical evidence describing who is moving into gentrifying communities and their housing choice and residential mobility.

Residential mobility is a process that changes lives and neighbourhoods. Neighbourhoods in Seoul have started to rebound because of recent demographic and economic shifts and more urban living. Middle and high income families are increasingly moving into once underinvested and traditional low-income communities in Seoul. Through urban redevelopment programs, investment and development in these neighbourhoods have increased often accompanied by significant increases in housing prices and rents. While no precise consensus definition of

gentrification exists in Korea, in this paper we will define a gentrifying neighbourhood as an existing urban neighbourhood that had a relatively low average income and experienced large mobility between neighbourhoods as function of individual and neighbourhood characteristics.

With respect to the housing mobility in Seoul's redeveloped neighbourhoods, the age of the housing stock is an important predictor of gentrification. As a neighbourhood's housing stock ages, middle income households leave for neighbourhoods with newer housing and they are replaced by lower-income households. Eventually, the housing stock ages to the point where it is ripe for redevelopment, particularly in the northern part (Gangbuk)[1)] of Seoul, where the neighbourhood gentrifies and middle and high income households move in.

Changing household circumstances, such as employment or family composition, may make the current housing unit or location less tenable or satisfactory. In addition, the household may also be attracted to other housing units or neighbourhoods for various reasons that contribute to the decision to relocate (Coulton et al. 2012).

Methodology

The primary data source for analysing the characteristics of in-movers who newly moved into the redeveloped neighbourhoods is the 2012 Korea Housing Survey data (KHS)[2)]. The case study includes three gentrifying communities – Gajaeul, Mia, and Gileum – which are included in the 'new town in new town' projects completed in Seoul done between 2000 and 2010.

The three case study areas (Gajaeul, Mia, and Gileum) were typical neighbourhoods where there was not only physically deteriorated housing highly concentrated, but public facilities (schools, community centres, etc.) were inadequate. Therefore, the primary goals of the project were to pursue renovation of old housing, into liveable communities and to revitalize neighbourhoods. Table 2 shows basic information on the three study areas designated for new town development. The development of these three new towns is ongoing. We chose the first redeveloped neighbourhood within the three projected areas (Fig.1).

In order to examine the characteristics of in-movers in redeveloped communities, we performed a comparative analysis on the socio-economic and housing attributes for in-movers and original residents that have lived in these communities before 'new town in new town' projects. Table 2 shows the descriptions of New Town projects in this case study, which includes the original resident populations and the projected number of households. We extracted the sample households for 169 in-movers and 229 original residents from the 2012 Korea Housing Survey Data. These New Town projects are going on, and Table 2 includes the statistical data of redeveloped districts as of the end of 2012. The percentage of population covered by the sample is 2%.

1) Gangbuk is located in the northern part of the city of Seoul. Its name is derived from the fact that it is located north of the Han River. The Han River flows directly through Seoul dividing the city into two main areas, the Gangnam and Gangbuk. The Gangnam area was the first part of Seoul to be developed as a modern residential district. By contrast, the Gangbuk area was the old downtown and it was under-developed with poor infrastructure and old housing until the year 2000.

2) The KHS is a national housing survey that has been conducted by the Ministry of Land, Infrastructure and Transport since 2006. The KHS includes general household (every even-numbered year) and special household (every odd-numbered year) components. The KHS data consists of seven major parts: 1) housing structure and tenure information; 2) housing costs and housing cost burdens; 3) residential move experience and housing satisfaction; 4) housing values; 5) home purchase experience; 6) future housing plans; and 7) household information. The KHS in 2012 included 33 000 general households selected through a series of stratified sample procedures.

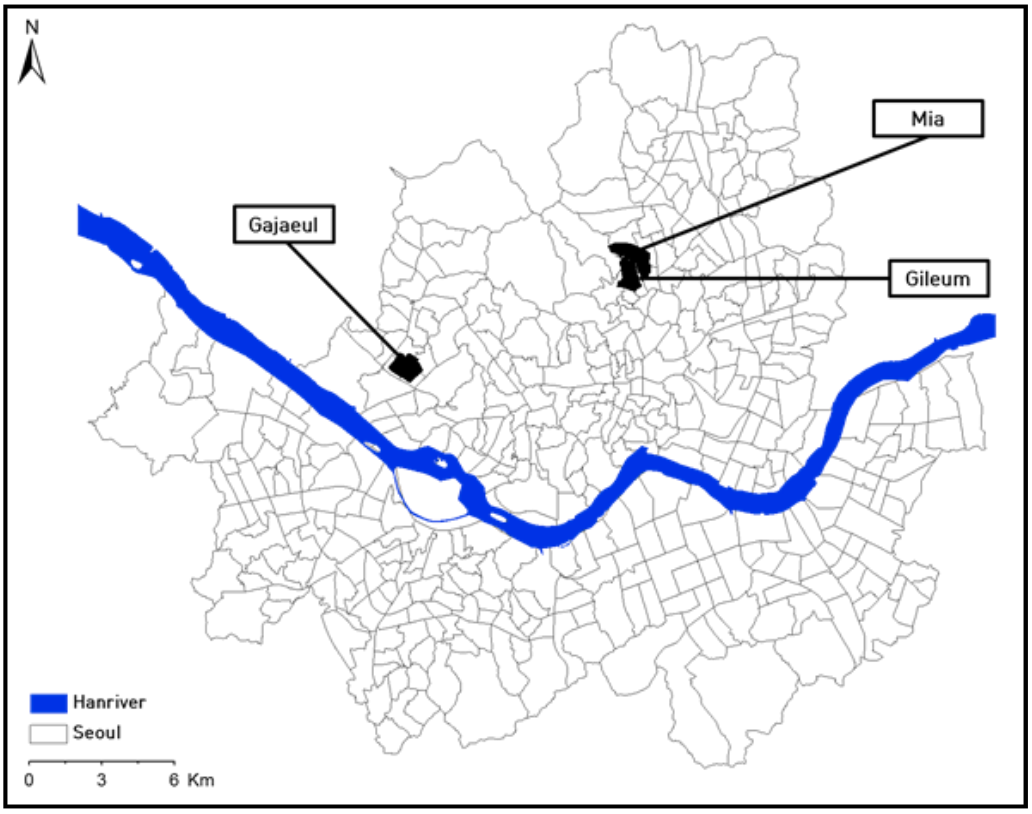

Fig. 1 - **Administrative boundary of Seoul and study areas**

Table 2

New Town projects on Gajaeul, Mia, and Gileum in Seoul

	Gajaeul	Mia	Gileum
Projected Area (㎡)	749 550	660 332	846 394
The number of original households	21 662	11 032	13 593
(Rate of tenant household) (%)	(57.3)	(28.8)	(52.5)
Projected no. of households	11 697	11 439	16 399
Projected population	49 024	28 000	39 500
Completed area (㎡) (At the end of 2012)	286 567	266 951	553 550
	(38.2%)	(40.4%)	(65.4%)
No. of households (At the end of 2012)	4 139	4 763	11 218
	(35.4%)	(41.6%)	(68.4%)
Projected development period	2005~2019	2005~2019	2002~2017

Source: Seoul Metropolitan Government, Jang et al. (2008)

We conducted t-test and chi-square tests in order to examine the two groups' characteristics (in-movers and original residents). The characteristics were grouped into three categories: 1) personal attributes: age, education level, job type, marital status, 2) household attributes: number of household members, number of children, monthly income, and 3) housing attributes: housing type, tenure, housing size, and number of rooms.

Results and Discussion

Table 3 presents the t-test results for the variables. On average, in-movers are about 7 years younger than the original residents. In-movers have 3.3 household members and 1.36 children, which is slightly more than those of the original residents. Therefore, the in-movers are likely to be relatively younger, have higher incomes[3)], more family members and a larger housing space compared to the original residents.

Table 3

T-test for the difference between In-movers and Original residents

	In-movers		Original residents		t-values
	Mean	**S.D.**	**Mean**	**S.D.**	
Age	51.23	10.81	58.92	13.93	-6.197***
Number of Household members	3.30	1.14	3.00	1.22	2.503**
Children	1.36	0.84	1.10	0.93	2.856***
Monthly income (US $)	3 227.8	1 281.7	2 403.5	1 462.7	5.970***
Housing size (m^2)	71.99	23.52	67.38	30.03	1.720*
Housing room	2.91	0.60	2.70	0.79	2.988***

***<0.01, **<0.05, *<0.1
Source: Korea Housing Survey Data (2012)

Table 4 shows the chi-square test results. There are statistically significant differences for the two groups' variables with the exception of the tenure type variable. In-movers have a much higher level of education, more professional and office jobs and a higher proportion of married households than the original residents. In-movers of gentrifying neighbourhoods can be characterized as married households with professional jobs and high educational attainment relative to the original inhabitants.

$$\ln\left(\frac{\hat{Y}}{1-\hat{Y}}\right) = \alpha + \beta X$$

where Yˆ is the predicted probability of the event which is coded with 1, and X are our personal, household and housing variables. I have coded subjects with 1 = in-movers, 0 = original residents.

Table 5 presents the results of the Binary Logit model. There are several interesting findings. First, among the socio-economic variables, in-movers are more likely to be younger and have a higher level of education compared to the original residents. Second, a high monthly income has a more positive impact on in-movers. Third, in-movers prefer to live in apartments.

3) The in-movers' income was higher than the average household income (3 592.60 $) in Seoul and the nation as a whole (2 954.18 $) in 2012 (KHS data).

Table 4

Chi-square test for the difference between In-movers and Original residents

		In-movers		Original residents		x^2
		Freq.	%	Freq.	%	
Education level	High school	80	47.3	170	74.2	41.107***
	College	13	7.7	20	8.7	
	University	69	40.8	39	17.0	
	Grad school	7	4.1	0	0.0	
Job type	Professional	12	7.1	8	3.5	28.830***
	Office	58	34.3	38	16.6	
	Service	50	29.6	61	26.6	
	Others	49	29.0	122	53.3	
Marriage	Single	24	14.2	49	21.4	3.362*
	Married	145	85.8	180	78.6	
Housing type	Detached house	7	4.1	50	21.8	52.739***
	Multi-family	9	5.3	35	15.3	
	Town houses	25	14.8	43	18.8	
	Apartment	125	74.0	92	40.2	
	Others	3	1.8	9	3.9	
Tenure type	Owner-occupied	90	53.3	121	52.8	6.123
	Chonse[1)]	62	36.7	67	29.3	
	Wolse[2)]	17	10.1	40	17.5	
	Others(Rent free)	0	0.0	1	0.4	

***<0.01, **<0.05, *<0.1

Notes: 1) Chonse is a rental system in which the tenant pays a lump sum to the landlord and receives the same money back when he or she leaves the rental unit. The landlord will usually invest the lump sum, and the interest earned represents the imputed rent. Landlords benefit during prosperous times by investing the deposits, generating good returns. Renters also benefit by not having to make monthly payments for the duration of the contract. 2) Wolse is the monthly rental system found in most countries.

Source: Korea Housing Survey Data (2012)

Table 5

Results of Binary Logit model

	β	Odds ratio
Age	-0.033***	0.967
Years of education	0.099*	1.104
Job type (1=office, 0=others)	-0.410	0.664
Marital status (1=married, 0=single)	-0.439	0.645
Number of household members	-0.005	0.995
Household monthly income (10 $)	0.770***	2.159
Housing type (1=apt, 0=others)	1.377***	3.965
Tenure type (1=own, 0=others)	-0.015	0.986
Housing size (m^2)	-0.463	0.629
Number of housing rooms	0.104	1.110
Intercept	-2.262	0.104
N	398	
Likelihood ratio	449.302	

***<0.01, **<0.05, *<0.1 Source: Korea Housing Survey Data (2012)

It is important to understand the characteristics of the in-movers' residential mobility. We used information on 169 households who had recently moved into gentrifying neighbourhoods. As a result, we found two types of previous residential location: (1) internal movement within the same communities and (2) external entry to the gentrifying neighbourhoods.

Table 6 indicates that the internal movement ratio of in-movers within redeveloped communities is 52.07%, while the external entry ratio of in-movers is 47.93%, respectively. Almost half of the in-movers are from the outside and the rest are original residents who live in the same communities. Compared to the Joint Redevelopment Project during the 1990s, the proportion of reoccupation of original residents is much higher. However, almost half of in-movers are the outsiders and it is likely that the communities have experienced the replacement of inhabitants and changes in the neighbourhood character.

Table 6

Results of their previous residential locations

	N	*%*
Internal movement within same communities	88	52.07
External entry to New Town area	81	47.93
Total	169	100.0

Source: Korea Housing Survey Data (2012)

It is essential to identify the main reason for the in-movers' housing choice. The 2012 KHS data includes information on housing characteristics as well as the reasons which why they moved in current housing. We used this variable for verification about whether the moving reasons differ depending on the socio-economic characteristics.

Table 7

Chi-square test for the difference between previous and current housing

		Previous housing		Current housing		χ^2
		Freq.	%	Freq.	%	
Housing type	Detached house	26	15.4	7	4.1	24.602***
	Multiplex house	13	7.7	9	5.3	
	Town houses	41	24.3	25	14.8	
	Apartment	89	52.7	125	74.0	
	Others	0	0.0	3	1.8	
Tenure type	Owner-occupied	64	37.9	90	53.3	14.168***
	Chonse	96	56.8	62	36.7	
	Wolse	9	5.3	17	10.1	

***<0.01, **<0.05, *<0.1
Source: Korea Housing Survey Data (2012)

An absolute majority of the in-movers' housing type has shifted to apartments (74%). The housing tenure of in-movers before housing mobility was: owner-occupied 37.9%, chonse 56.8%, and wolse 5.3%. After the movement in the regeneration projects area was completed, more than half of the in-movers were owner occupiers (53.9%). When the housing size and number of rooms are compared before and after, housing conditions generally improved (Table 7). As a result, the in-movers in Seoul have experienced an improvement in their housing in terms of the tenure type and housing quality (Table 7 and Table 8).

Table 8

T-test for the difference between previous and current housing

	Previous housing		Current housing		t-values
	Mean	**S.D.**	**Mean**	**S.D.**	
Housing size (m^2)	71.18	25.6	71.99	23.5	0.305
Number of rooms	2.76	0.6	2.91	0.6	2.255**

***<0.01, **<0.05, *<0.1
Source: Korea Housing Survey Data (2012)

Table 9 presents the reasons for housing mobility. The main reasons for housing mobility are: 'purchase new housing', 'more spacious housing', and 'better facilities. These results indicate that the in-movers in regeneration areas are primarily likely to relocate for a better housing environment[4]. The redevelopment projects provide modern facilities and a more liveable residential environment. It is mainly due to a clearance type of redevelopment and a development strategy of market attraction. The old and deteriorated housing and community facilities are totally demolished and newly built housing attracts the middle and high income in-movers.

Table 9

Reasons for residential mobility

	N	*%*
Purchase new housing	30	17.75
Because of the termination of a contract	30	17.75
Need for more spacious housing size	23	13.61
Need for better housing facilities	23	13.61
Because of a change in jobs	18	10.65
Better transportation system than previous residence	10	5.92
…	…	…

Source: Korea Housing Survey Data (2012)

There are both similarities and differences in terms of gentrifier characteristics and their processes of gentrification between Seoul and Western cities. Gentrification in Seoul was similar to Western gentrification in that it was affected by the middle class "gentrifiers", the demographic changes and the city's post-industrial city status[5]. It is also similar to Western gentrification in that gentrification involves restoring and upgrading the deteriorated urban property, often causing the displacement of low-income individuals.

However, Seoul had a much greater emphasis on physical neighbourhood upgrades through regeneration programs. In-movers who are the gentrifiers in Seoul are unique in terms of their housing choices and socio-economic attributes. Seoul's gentrifiers are mostly a product of

4) Better housing environment in this study means increasing in the number of room and housing size as well as new facilities such as heating system, security system, garbage disposal and parking area.

5) The post-industrial status in Seoul including: 1) Economic changes emphasizing the role of services (growth rate of employment in the tertiary and quaternary sectors). 2) Change in the social structure, strengthening the role of professional and technological classes. 3) The importance of information in social life is reflected in the late of the 20th century and in the spatial structure of the city.

internal movement rather than external entry into the city. In Western cities, particularly many cities in the USA, middle class gentrifiers are primarily from suburban areas (Smith 1979). In the movement patterns, short distance migration within city boundaries was more frequent than long distance movement, and the proportion of gentrifiers was relatively low compared with the total incoming households. Korean gentrifiers' major motivations for movement were the purchase of a new house and the desire for more spacious housing, better facilities, and a better transportation system to the city centre. Relative to Western cities, gentrification in Seoul is a relatively limited phenomenon, in which residents from the city outskirts have migrated to the inner city areas. It should be noted that gentrification in Seoul is not "a back to the city" movement of the middle class from the suburban areas, which is a phenomenon that occurred in the American cities during the 1980s and 1990s. In that case, households moved back to the urban neighbourhoods after many years of suburban life.

In terms of the gentrification process, the vast majority of middle-class gentrifiers had never lived in the renewal project communities and they were newcomers as owner-occupiers. Due to the lack of affordability, original residents (mostly low-income owner-occupiers) sold their right of re-housing to others who could afford the cost. The re-housing ratio of original residents, particularly tenants, is critically low. It should be emphasized that those who moved involuntarily were primarily low-income families who moved to other areas where housing costs are lower. Tenant associations have tried to implement anti-eviction policies and anti-business-driven regeneration campaigns in Seoul. The Seoul Metropolitan Government has enacted legislation banning eviction in severe winter season in order to endure the suffering of tenants. However, the efforts made by the tenant association were insufficient to bring about a drastic change in the policy of business-driven generation.

The Seoul Metropolitan Government has become an active enabler of urban regeneration projects, in line with the enactment of the Special Promotion Act of Urban Renewal in 2006. The so-called 'New town in town' program was initiated. It is a much more aggressive housing and urban regeneration policy that emphasizes comprehensive development with a large-scale master plan. Due to the Special Promotion Act of 2006, private developers have developed large housing units to maximize profits (Kyung and Kim 2011, Lees et al. 2015). As a result, housing became an attractive investment option in accordance with the government's home promotion policies, such as providing incentives and conditions including a pre-sale housing system for the construction companies and more inexpensive loans for homebuyers. Shin and Kim (2016: 16) argued: "Seoul's gentrification is not simply mimicking the new-build gentrification in the global North, as the process is heavily influenced by the strong developmental, and later neo-liberalizing, state".

Conclusions

It is apparent that gentrification in Seoul is characterized by the state as an enabler or facilitator brings about active engagement of outside middle class 'gentrifiers' and mass displacement of the original residents. Issues of housing insecurity and inequality arise most acutely from urban and housing regeneration policies, particularly in the gentrification process in Seoul.

It is evident that housing and urban regeneration projects achieved the goal of increasing the housing stock and improving the physical environment, particularly in low-income residential areas in Seoul. However, the policy goal regarding the original residents' housing welfare has not been achieved, with worsening prospects for low-income residents. The socio-cultural characteristics of low-income communities are destroyed, and housing security for the original residents, particularly poor tenants, becomes unstable. The change in class distinction resulting from gentrification has also been shown to contribute to residential polarization by income, education, household composition, and tenure type. Planners and government officials must

consider and identify low-income residents' concerns and hopes for the future in the planning stages of regeneration programs.

One of the important housing and urban regeneration policy issues is how the state empowers and cooperates with Non-Government Organizations (NGOs), Community Based Organizations (CBOs), communities, and the private sector. Gentrification in Seoul was led by the state via urban and housing regeneration policies. In Korea, NGOs were intended to fill a gap in government services. They mobilize financial resources, materials, and volunteers to create localized programs. Some NGOs and religious organizations have organized anti-eviction campaigns and lobbied for governmental housing and urban regeneration policies favourable to low-income families and tenants[6]. The cooperation between governments and NGOs should be emphasized and it will allow urban regeneration to emerge as people-centred development by promoting a true social movement.

Seoul's gentrification in its own way has experienced real estate development and capital accumulation as a central force in the urban economic expansion over the last 40 years. Seoul's gentrification has been characterized and initiated by the state as 'a housing provision-led and business-driven approach' with the expectation of a 'trickle-down effect' on housing construction and real estate. Regeneration projects have focused on maximizing home owners' profits rather than on improving housing for low-income groups or revitalizing the community. Our investigation indicates that gentrifying neighbourhoods are typically characterized by the influx of new residents of a higher socioeconomic status relative to the original residents. It is a dynamic process that can occur at varying speeds.

Seoul's regeneration projects were business-oriented rather than community welfare-oriented. In regeneration projects, housing has not been allocated or provided for those with the greatest need. Policies should be adapted to meet the specific needs of residents and to incorporate the socio-economic and cultural variables of the original community.

Since late 2011, the Seoul metropolitan government has been revising its regeneration policy, by scaling down or cancelling 'development and business-driven projects' that were pursued by the former mayor (conservative ruling party). The new approach is an 'enabling and community-based method' of achieving democratic participation and inclusiveness, especially of vulnerable social groups in substandard residential areas. The Seoul Metropolitan government, led by the new liberal Mayor Park Won-Soon, aims to give citizens the tools to create and implement solutions to their housing problems. It is too early to conclude whether the Seoul Metropolitan Government's new approach will stop 'renewal-induced and business-driven gentrification' in Seoul.

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6) There are several NGOs in Korea which deal with housing and urban renewal movement. These include the Korean Coalition for Housing Rights; the Catholic Organization of the Urban Poor; the Korea Centre for City and Environment; and the Citizens' Coalition for Economic Justice. Since the mid-1980s, anti-eviction campaign have been the main housing movement for NGOs with aim of trying to stop forced eviction in urban renewal project areas.

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Correspondence: Department of Urban Planning and Real Estate, Chung Ang University, 84 Heukseok-Ro, DongJak-Gu, Seoul, Korea.

Email: skha47@daum.net

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THE MAIN TENDENCIES OF SOCIAL AND ECONOMIC TRANSFORMATION OF CITIES IN THE TRANS-BAIKAL TERRITORY

Olga **GUROVA**
Institute of Natural Resources, Ecology and Cryology,
Siberian Branch of the Russian Academy of Sciences, Russia

Abstract: In this paper, city-status settlements of the Trans-Baikal Territory are considered. The Trans-Baikal Territory is a territorial entity of the Russian Federation located in the south of Asian part of Russia. Cities of the Trans-Baikal Territory are economic and cultural centres of regions; they play an important role in development and support of the surrounding territory. In this paper, demographic, migration, social and economic conditions of the cities are reviewed. The analysis of conditions in cities has been performed on the basis of statistical data collected from the administrations of the cities of the region and other published statistical materials on the basis of a comparative geographical method, as well as a review of the literature. The generality of tendencies in the social and economic situation and regional peculiarities of cities are shown. In all cities of the region there is a decrease in the population. The paper concludes that, by now, the issue of migration loss is the strategically important development problem in the Trans-Baikal Territory.

Key Words: *cities of the Trans-Baikal Territory, population dynamics, migration, social and economic transformation*

Introduction

The geographical study of cities as an independent branch of socio-economic geography has its own history. Currently, scientists continue to study social, economic and ecological problems of urban development. Urban geography is one of the dynamically developing fields of geography aiming at solving the problems of urbanized regions and urban development. A city is studied as a complex system and the research includes the analysis of historical and geographical, social, economic and other aspects of the development of cities (Pertsik 2009).

The rapid development of cities in Russia in the twentieth century is associated with industrialization, the development of industrial functions of cities and an increase in the urban population. In the modern period of development of urban geography, in the scientific literature there are works devoted to such a phenomenon as the reduction of the population in cities generating problems of urban development. This theme is seen in the works of Russian (Karachurina and Mkrtchyan 2010, Rykov 2010, Antonov et al. 2014, Gunko 2014, Savoskul et al. 2014) and foreign authors (Pallagst et al. 2009, Avila de Sousa et al. 2011, Couch and Cocks 2011, Hollander 2011, Wiechmann and Pallagst 2012, Bański et al. 2016).

In order to denote the cities with decreasing population, the international research practice uses the term of “shrinking city”. This term can be applied to a city which loses population because of economic decline. Similar trends of decreasing urban population are observed in some regions of economically developed countries – the USA, Great Britain, Germany and even China. China has even created a research network dedicated to the phenomenon of shrinking cities for studying this important issue (www.beijingcitylab.com/projects-1/15-shrinking-cities). Two top-priority approaches have been worked out: in the USA (in 1950-

1960) – it is based upon attempts to develop profitable branches of industry which are in demand in a city, the development of business and the creation of infrastructure; and in Germany (1990-2000) – switching to inner reserves, improvement of the quality of life and adaptation of a city to the population decrease (Efremova 2015).

Studies on the topic of shrinking cities were realized within several foreign projects, such as: "SHRINK SMART – The Governance of Shrinkage within a European Context (2009-2012)" (www.shrinksmart.eu). It is based on comparative case studies from seven urban regions throughout Europe. The project aims on analysing different trajectories of shrinkage, understanding the main challenges for urban planning and elaborating alternatives for urban governance. Also, the project "Cities Regrowing Smaller" is a network of more than 60 European researchers working on the topic of urban shrinkage in Europe. The result of the project was a map illustrating shrinkage in Europe (Avila de Sousa et al. 2011).
Several collective books were published on this topic (Pallagst et al. 2014, Richardson and Nam 2014). The last paper emphasized: "the urban shrinkage characterised by economic decline and population loss has been increasingly becoming a rather normal phenomenon of urban development worldwide" (Richardson and Nam 2014: 1). The book consists of 4 parts and it deals with a wide range of issues, dedicated to the topic of shrinking cities. The first part presents the analysis, classification and prospects of shrinking cities, the second part is devoted to different countries, and the third to individual cities. The fourth part of the book addresses the issue of environmental benefits (and costs) of shrinking cities (Richardson and Nam 2014).

There are several reasons of shrinkage (Schett 2011): economic changes (deindustrialization) (Manchester is an example), structural changes (suburbanization, outflow of population) (Detroit), political changes, and a combination of these causes (East Germany). In the paper of Großmann et al. (2013), the authors note that the morphological structure of the city, its ecology, and culture can also affect the diversity of urban trajectories. This can practically be observed in the cities of the Trans-Baikal Territory. For example, in the city of Baley, the deterioration in the environmental situation contributed to the migration of the population, but in Nerchinsk – which has a rich cultural heritage, the migration is small.

A large number of foreign works devoted to the phenomenon of urban shrinkage shows its global nature and it covers various issues related to the social and spatial consequences of population decline, urban planning and industrial decline of cities, and urban ecology with a decrease in the population (Herrmann et al. 2016).

In the Russian context, the "analysis of transforming small and medium-sized towns within the period of Russian economy transfer to the phase of market relations is of specific scientific merit. Approximately 85% of total quantity of cities in the country is represented by this category" (Medvedeva 2004: 3). The small and mid-sized cities, and the small urban settlements of the eastern regions of the country are of great importance for the social and economic development of these territories because of less density of population and of high geographic dispersion of cities in Siberia. The scientific concept of "center-periphery" spatial development implies that the economic development of territories and cities is going by different directions: the population is concentrated in the regional centers while the provincial territories (small towns, rural areas) lose population and suffer decline. Cities, as well as other inhabited localities, are affected by the negative processes of development described hereunder.

Methodology

The cities of the Trans-Baikal Territory represent the object of study. The main goal of the study was to identify the main trends of demographic and socio-economic development of

cities in the Trans-Baikal Territory in the modern period. In the course of the study, the author carried out the selection of statistical information on the cities of the Trans-Baikal Territory. Surveys of representatives of local administrations of cities were conducted, and city development programs were studied. The statistical material was also analysed. For this purpose, the published official statistics were used. In addition, the author collected statistics directly from the administrations of the cities of the Trans-Baikal Territory.

The work used comparative-geographical, cartographic, and descriptive-analytical methods. For the purposes of the research, the predominant industry (manufacturing, mining) and the functional type (administrative, transport and other functions) was determined in all the cities of the region. This allows to better understand the importance of the city in the region.

To analyse the demographic situation in cities, an important indicator of it is the population dynamics. The natural increase in the population is the absolute value of the difference between the numbers of the born and the dead in a certain period of time. Its magnitude can be either positive or negative. A positive natural increase indicates an excess of fertility over mortality. The number is also affected by the migration of the population. The migration growth (loss) of the population represents the difference between those who arrived and those who left the territory. Thus, there were considered such statistical indicators of cities as: population, natural increase/decrease of population, migration growth/decline of population, the total area of housing stock, input in action of houses, improvement of housing city fund, the volume of industrial production and the availability of enterprises in cities.

Table 1

General description of the cities of the Trans-Baikal Territory

	Name of the City	The City Status Earned in (year)	Area of the Territory, km^2	The Main Branches of Industry	Functional Type
1	Chita	1851	534	Construction, power, manufacturing industry, mining	Administrative, economic, transportation centre, railway station
2	Borzya	1950	187	Manufacturing industry	Transportation centre, railway station
3	Baley	1938	48	Mining (gold mining), manufacturing industry,	Industrial centre
4	Nerchinsk	1689	100	Manufacturing industry	Distribution, administrative and cultural centre
5	Sretensk	1926	82	Manufacturing industry	Transportation centre, railway station
6	Krasnokamensk	1969	428	Mining, manufacturing industry	Industrial and transportation centre, railway station
7	Shilka	1951	105	Manufacturing industry,	Transportation centre, railway station
8	Mogocha	1950	95	Manufacturing industry	Transportation centre, railway station
9	Khilok	1951	170	Manufacturing industry	Transportation centre, railway station
10	Petrovsk-Zabaykalsky	1926	300	Manufacturing industry	Transportation centre, railway station

Source: Own research and Cities of the Russian Federation (goroda-oblosti.ru)

There are 10 cities located in the Trans-Baikal Territory (Fig. 1, Table 1): Chita, Borzya, Baley, Nerchinsk, Sretensk, Shilka, Krasnokamensk, Mogocha, and Khilok. Chita is an administrative, economic, cultural and traffic centre of the Trans-Baikal Territory; it is located 6198 km from Moscow by railway. There are also new cities which emerged recently, such as Krasnokamensk, and historical cities such as Nerchinsk in the territory.

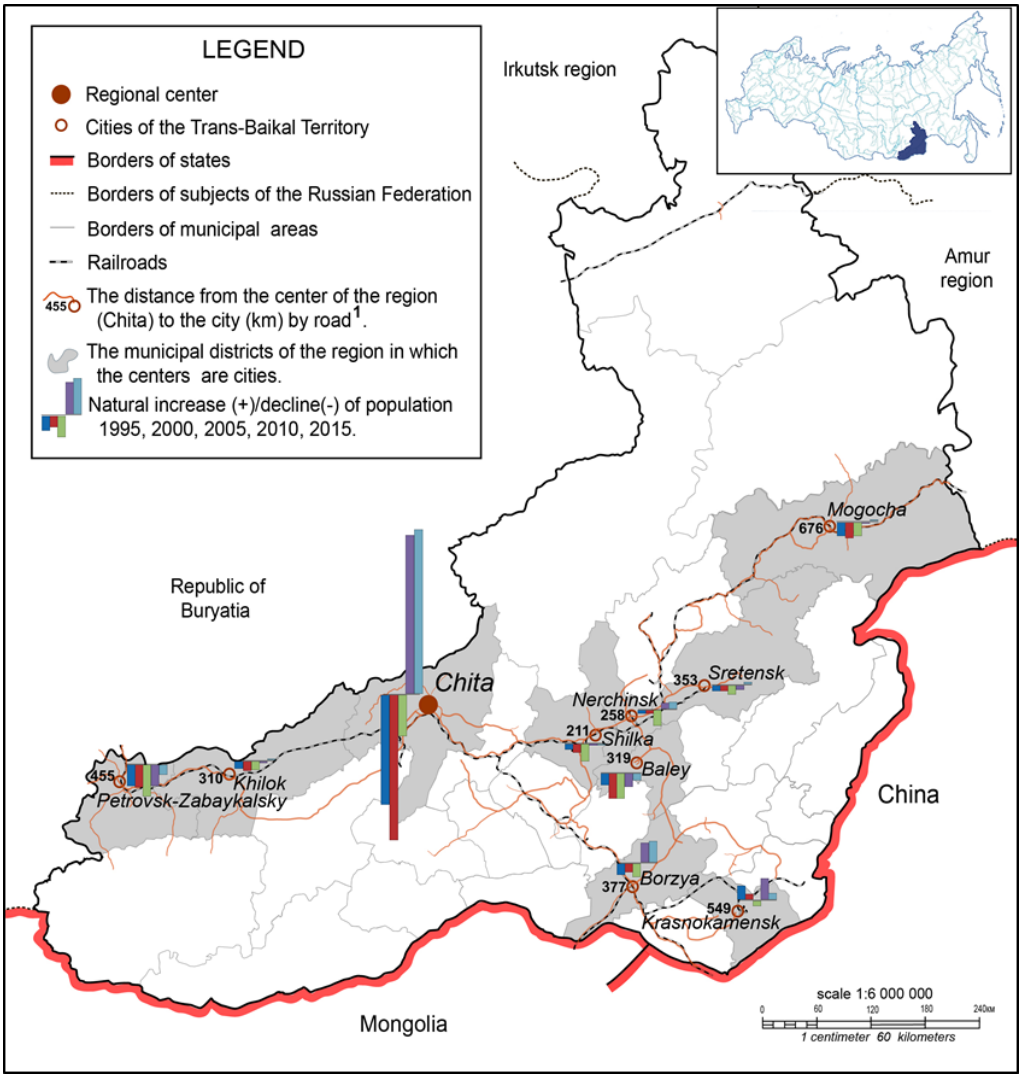

Fig. 1 **– Cities of the Trans-Baikal Territory**
On the map-sidebar: The Trans-Baikal Territory on the map of Russia
[1]According to the Atlas of Roads of the Trans-Baikal Territory (2011)

The territory development was initially determined by the interest towards its biological resources (fur) and its mineral resources afterwards. The migration of the Russian population

into the areas of Cisbaikalia and Transbaikalia commenced in 1620-1630s; by the middle of the century, a network of Russian settlements – stockaded small towns and villages located along the main rivers – appeared. The Trans-Siberian Railway played the major role in the development; it was constructed at the end of the XIXth century – the beginning of the XX century; new cities were constructed along the railway (Preobrazhenskii 1965). Nerchinsk stockaded town was the most important economic, administrative, trade and diplomatic centre; by the end of the XVII century, it became an economically developed town (Konstantinova N. N. 2002). By the end of the XIX century, Chita became the largest town. In 1897, its population was of 11520 people (Konstantinova T. A. 2002).

In 1897, the population of Eastern Transbaikalia cities was of 19.8 thousand people, and 61.8 thousand people in 1917. Town settlements were mostly growing by means of migration of population from the western regions of the country. No considerable migration was observed from the Trans-Baikal villages to the cities; it played no important role in growth of cities (Vorobyev 1975).

In terms of population, only Krasnokamensk is a mid-sized city (from 50 to 100 thousand people); other ones are small cities (to 50 000 people). The population of Khilok, Baley and Sretensk is less than 12 000 people. Baley and Krasnokamensk are single-industry cities. Krasnokamensk is the newest and the second largest city of the territory. Other cities of the territory (except Nerchinsk) are referred to the category of transportation centres, serving as railway stations.

Borzya was founded in 1770. Later, during the construction of the Trans-Baikal Railway and the railway station, the further development of the village was predetermined by the favourable location for transportation among the areas specializing in agricultural production. In 1924, the population of Borzya village, located near the railway station, was of 2976 people (Solodova 2004), and then the town was further growing and it gradually became a transportation junction.

The city of Petrovsk-Zabaikalsky is the oldest metallurgical centre of Siberia. The city-forming enterprise in the city was the Petrovsk-Zabaikalsk Metallurgical Plant. Originally, it was called the Petrovsky Iron-Making Plant, built in 1789 and named after Peter I. In 1905, the iron-making industry stopped, the production of cast iron, forging and mechanical handicrafts continued. In the late 1970s, the production declined. Marten's shop was working on imported iron and metal scrap. The shortage of raw materials and materials led to a decrease in output. In 1998, the average number of employees was of 1914 people. In 2001, the enterprise stopped its activity (Gatypova and Boltovskaya 2006).

The city of Mogocha was founded in 1908 as a railway station. At the beginning of the 20th century, railway enterprises (locomotive and wagon depots) were opened in the city, and an airport was built, which was profiled until the 1990s. The population grew: in 1917, the population of the city was of 1780 people, in 1922, of 3962 people (Gladun 2006). The city of Khilok was founded in 1895 as a railway station. Now, the population works at the enterprises of the railway, in municipal institutions, in the agricultural production, and in trade.

Results

Demographic and migration conditions

The whole region is characterized by a migration outflow: within the period from 2000 to 2015, the population of the whole territory decreased by 82 848 people. The population of all cities in the territory (except Chita) decreased by 62 835 people from 1989 to 2015. By now, the population in some towns of the territory (such as Baley and Sretensk) reduced even more than generally in the region in comparison with 1989 (Table 2). 511 094 people lived in all cities of

the territory at the beginning of 2015; this makes 47% of the territory population; 117 370 people live in the small towns of the territory (10.7%).

Table 2

The urban population as of January, 1st (people), of the Trans-Baikal Territory

City	Years							Difference between 1989 and 2015	2015 against 1989 %
	1959	1979	1989	2002	2010	2012	2015		
Chita	171 800	302 600	362 500	317 183	323 246	327 400	339 929	-22 571	93.7
Petrovsk-Zabaykalsky	29 800	30 900	28 200	21 164	18 786	18 100	17 144	-11 056	60.8
Borzya	23 700	35 800	36 600	31 588	30 685	30 800	29 405	-7195	80.3
Baley	28 800	25 900	23 900	14 797	12 859	12 200	11 696	-12 204	49
Nerchinsk	13 500	16 900	17 300	15 811	14 025	14 900	14 746	-2554	85.2
Sretensk	15 100	13 400	10 500	8258	7913	6700	6608	-3892	63
Krasnoka-mensk	-	51 000	68 200	58 128	56 987	55 400	53 795	-14 405	78.9
Shilka	16 800	17 200	17 500	15 305	13 947	13 700	13 162	-4338	75.2
Mogocha	14 900	17 700	18 100	13 788	13 250	13 400	13 640	-4460	75.3
Khilok	15 900	14 200	13 700	11 344	11 185	11 400	10 969	-2731	80
Trans-Baikal Territory	**1 036 400**	**1 233 400**	**1 375 300**	**1 155 340**	**1 108 791**	**1 099 396**	**1 087 452**	**-287 848**	79

Source: Own research based on the data of the following statistical books – Social and Economic Performance of Municipal Districts and Urban Districts of the Trans-Baikal Territory (2012, 2015); Population of the Trans-Baikal Territory as of January 1st (2010); Municipal Entities of the Trans-Baikal Territory (2015); 70th Anniversary of Chita Region (2007); Demography of the Trans-Baikal Territory (2015).

It should be noted that the population in Chita significantly decreased by 2000 in comparison with 1990 (correspondingly it amounted to 307 000 and 369 651 people) (Chita Regional Committee on Statistics 1991, Chita Regional Committee on Statistics 2001), and this was caused by the economic decline. As reported (Bulayev and Kovalyova 2004), during the last decade of the XXth century, all regions of the country suffered a consistent decrease of population, in different proportions over time.

The recent increase of population in Chita is explained by the positive natural increase associated with the federal programs aimed at the stimulation of the birth rate and the recent positive migration balance. The positive natural increase in 2010 and 2015 was observed in Chita, Borzya, Nerchinsk and Krasnokamensk; population decline was observed in Petrovsk-Zabaykalsky, Shilka, Mogocha, Baley (Fig. 2, Table 3).

In comparison with 1960s, Baley (former gold mining centre) and Sretensk lost half of their total population. In Petrovsk-Zabaykalsky, in 1970, the population level reached 32 000 people (Bulayev and Baranova 2015). Baley and Petrovsk-Zabaykalsky, in the beginning of 2000s and earlier, have been already referred to extremely depressive territories (i.e. with the highest population decline); Borzya and Chita have been referred to the category of stagnation territories (Bulayev and Kovalyova 2004). The recent positive natural increase of Borzya and Krasnokamensk does not result in an increase of population because of sufficiently high migration loss. Whereas, according to Bulayev and Kovalyova (2004), the earlier absence of natural increase was compensated by the migration inflow. However, the negative migration balance is observed in all other cities of the territory (Table 3).

The highest migration loss was observed in Krasnokamensk, Borzya, Baley, and Petrovsk-Zabaykalsky. In 2010, the migration loss exceeded the natural increase only in Krasnokamensk, while in 2015 – only in Chita. The migration outflow exceeds the natural increase only in Borzya (both in 2010 and in 2015). The migration outflow exceeds the natural decrease in Baley (both in 2010 and in 2015). In Nerchinsk, the natural increase is

low, as well as the migration loss. In Shilka, both migration loss and natural population decline are low. Mogocha and Khilok are characterized by an extremely low natural increase at sufficiently high migration loss. The population of the territory is migrating to the centre (Chita) and moving outside the boundaries of the region. The employable population of Chita is also migrating to other regions, but the positive migration balance is mainly reached by the migrants from the CIS and China.

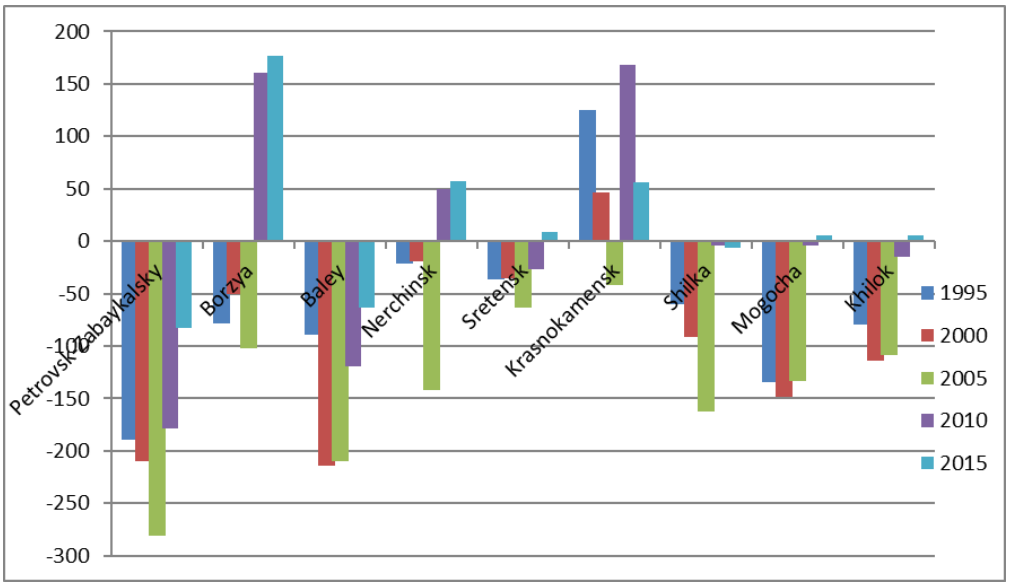

Fig. 2 **– Natural increase of population in the cities of the Trans-Baikal Territory**

Source: Own research based on the data of the statistics taken directly from the administrations of the Trans-Baikal Territory cities and from Rosstat (the Russian Federal State Statistics Service

Table 3

Natural Increase/Decline and Positive/Negative Migration Balance (+)/(-) (people)

City	Natural Increase (+)/Decline (-)					Positive (+)/Negative (-) Migration Balance				
	1995	2000	2005	2010	2015	1995	2000	2005	2010	2015
Chita	-974	-1297	-378	+1413	+ 1457	1409	-2050	-1875	+1060	+2232
Petrovsk-Zabaykalsky	-189	-210	-281	-179	-83	84	-98	-87	-167	-259
Borzya	-78	-50	-102	+161	+177	109	33	-225	-641	-589
Baley	-89	-214	-210	-119	-63	-395	-283	-64	-132	-284
Nerchinsk	-21	-19	-142	+50	+57	12	-259	-71	-29	+1
Sretensk	-36	-35	-63	-27	+9	11	-82	40	+10	-6
Krasnokamensk	125	46	-42	+168	+56	-1609	187	-121	+374	-904
Shilka	-60	-91	-162	-4	-6	-112	-63	9	+10	-8
Mogocha	-134	-148	-133	-4	+6	-	-149	-127	-121	-63
Khilok	-80	-114	-109	-15	+5	-9	-18	49	-80	-120

Source: Own research based on the data of the statistics taken directly from the administrations of the Trans-Baikal Territory cities and Rosstat

The highest migration loss was observed in Krasnokamensk, Borzya, Baley, and Petrovsk-Zabaykalsky. In 2010, the migration loss exceeded the natural increase only in Krasnokamensk, while in 2015 – only in Chita. The migration outflow exceeds the natural increase only in Borzya (both in 2010 and in 2015). The migration outflow exceeds the natural decrease in Baley (both in 2010 and in 2015). In Nerchinsk, the natural increase is low, as well as the migration loss. In Shilka, both migration loss and natural population decline are low. Mogocha and Khilok are characterized by an extremely low natural increase at sufficiently high migration loss. The population of the territory is migrating to the centre (Chita) and moving outside the boundaries of the region. The employable population of Chita is also migrating to other regions, but the positive migration balance is mainly reached by the migrants from the CIS and China.

Thus, according to Tsykov et al. (2015), the largest proportions of population move for permanent residency to the Republic of Buryatia – 16.6%, to the Irkutsk Region – 11.4%, to the Novosibirsk Region – 7.2%, to the Krasnodar Territory – 6.3%, to Saint-Petersburg – 5.0%, and to the Khabarovsk Territory – 4.5%. The major portion of people shifting their place of residence consists of employable population (77.7% of arriving people and 75.8% of leaving people).

Social and economic conditions

Currently, an economic downfall is observed in the cities of the territory (Table 4).

Table 4

Shipment of own-produced goods, performance of work and rendering of services by own resources in the manufacturing industry (in actual prices, thousand rubles)

City	Manufacturing industry		
	2005	2010	2015
Chita	2 276 408	5 891 300*	5 946 047
Petrovsk-Zabaykalsky	6927	4683	-
Borzya	11 145	384 500	349 900
Baley	13 905	4792	-
Nerchinsk	4010	287 100	195 500
Sretensk	7 739	7647	1855
Krasnokamensk	173 970	67 299	-
Shilka	18 059	34 205	7700
Mogocha	7666	34 554	10 028
Khilok	3186	2727	3210

*According to *Chita by Numbers. Statistical Book* (2015).
Source: Own research based on the data of the State Statistics Service for the Trans-Baikal Territory and Rosstat.

The share of small towns in the manufacturing activities of the territory from 2010 to 2015 reduced from 7% to 2.7%. The majority of small cities are socioeconomically underdeveloped; the problems of single-industry cities are associated with the condition of city-forming enterprises. Thus, Baley, in which the "BaleyZoloto" industrial complex (one of the leading enterprises of the gold mining industry of the country) has been operating since 1929, was a large industrial centre. In 1990s, the primary production of the industrial complex was suspended. The mining activity of this period resulted in the critical environmental deterioration within the territory of the city (Chechel 2004). It can be noted that in cities with a previously developed mining industry with the termination of the industry, the problems are especially

aggravated. An example of this is the city of Baley.

Only Nerchinsk was less influenced by the crisis in all branches of the economy (Bulayev and Baranova 2015). The city of Nerchinsk has not lost its centrality in the transport-settling structure and in the traditional flows of inter-settlement communications. Its cultural heritage, expressed in the objects of architecture and historical events, witnessing historical and political centrality is still valuable (Semibratova 2016).

Currently, in Nerchinsk food-manufacturing is the main activity. In the beginning of 2000s, a meat-processing plant, a bread production plant, a liqueur and spirits producing plant and a milk processing factory operated in the city. In the Soviet period, the production enterprises, as a rule, had a well-developed infrastructure and a high production output. At present, the output of Makner LLC, a milk-processing enterprise for the production of milk and fermented milk products, is considerably lower.

In Mogocha, Khilok and Shilka employment in the railway service is predominant. However, in the beginning of 2000s, employment at the railway reduced by several thousands of workers. The employment in the agricultural sector of cities is also in decline – only several hundreds of people work there currently (Bulayev and Baranova 2015). Thus, in almost all cities, there is a decrease in the employment rate (Table 5), which is due to a decrease in the working-age population and it is a consequence of demographic processes.

Table 5

Average number of employees of organizations (without external part-time workers) / Average annual number of employees in the economy (people)

City	Years				
	1995*	2000*	2005*	2010**	2015**
Chita	131 000	114 706	134 263	98 700	96 600
Petrovsk-Zabaykalsky	8100	8333	4822	6500	-
Borzya	14 800	10 756	4974	10 300	7807
Baley	6900	3785	2964	3774	3686
Nerchinsk	5000	3655	3016	-	4010
Sretensk	2600	2446	2558	1518	2190
Krasnokamensk	30 400	22 614	21 751	26 470	25 552
Shilka	7600	6534	4557	4100	5613
Mogocha	5700	3028	2189	6775	-
Khilok	8200	5390	2842	5959	4291

*1995, 2000, 2005 – given the average number of employees of organizations; Source: Rosstat
** 2010, 2015 – the average annual number of the employed in the economy; Source: the Urban Development Programs.

The incomes of the city budget are formed at the expense of tax and non-tax revenues, which form their own income, as well as gratuitous receipts (funds of the regional and federal budgets). The main source of tax revenues in the city budget is the personal income tax. In recent years, in the city budgets, the expenditures exceed the revenues (or the surplus is very small) (Table 6).

The city can use its own revenues at its own discretion and they are usually spent in the social sphere. If new enterprises do not appear, first of all, in industry, the wages of those employed in the economy will not grow, and it is unlikely that the city's own revenues will increase (Gurova and Zadorozhny 2008).

Table 6

Surplus, deficit (-) of the city budget (thousand rubles)

City	Years		
	2006*	2010**	2015***
Chita	126 987.2	-273 398.6	-110 551.8
Petrovsk-Zabaykalsky	-25 686	1781.6	564.5
Borzya	291.7	-4816	-5788.4
Baley	-11 792.2	-4569	-10 103.2
Nerchinsk	2162	-3237	3741.0
Sretensk	194	331.3	4063.2
Krasnokamensk	4648.7	2581.6	16 967.3
Shilka	558	-14 076	-1218.4
Mogocha	548	-8013.1	-28 314.4
Khilok	127.2	228.5	-11 581

Source: *http://chita.gks.ru ; **Execution of the local budget of the municipal entities of the Trans-Baikal Territory in 2010 (2011) ; ***Budgets of municipal entities of the Trans-Baikal Territory in 2015 (2016).

Such housing conditions of population as parameters of their living area, the urban amenities (comfort) of the housing stock play an important role in the social and domestic infrastructure. Normal housing conditions are of great importance for human life and activities, and they also represent a considerable share of the social standard of living. The commissioning of houses increasing the social standard of living allows reducing the migration of the working population. The examination of the housing stock in cities showed that the area of the housing stock in Chita increased by 756.6 th.m^2 from 2010 to 2015. Within this period, 59 090 m^2 of the total area was commissioned. The living stock of other cities has not considerably grown; it is commissioned by individual builders. The active construction of houses with amenities in the different districts of Chita is differed by the number of storeys. Thus, in the Central district predominantly multi-storey houses are constructed (residential buildings of 9-10 storeys); in other districts, mid-rise and low-rise houses are erected. The highest percentage of provision of urban amenities in the housing stock is in Chita (73.8% in average), Krasnokamensk and in Nerchinsk. In other cities, this percentage amounts to 50% and lower. Baley (former gold mining centre) shows the lowest level of provision of urban amenities; no hot water supply is provided in the town. The level of provision of liquefied gas is low: 31.3% in Chita, 17.2% in Petrovsk-Zabaykalsky, 26% in Borzya, and 19.1% in Baley. Housing and public utilities suffer serious problems, such as high deterioration of in-house networks and equipment, lack of highly-qualified specialists, including keepers of housing stock.

Discussion

As a result of the analysis of the problems of cities functioning unfavourable tendencies of demographic development were revealed. The processes of the natural and migratory movement of the population of the cities have an exceptionally important significance for the reproduction of the population. Currently, migration cannot compensate for the natural decline in population, because a negative migration balance is observed in all cities of the territory, except the administrative centre. The reasons for the outflow of the employable population out of small cities of the territory are: underdeveloped infrastructure, severe climate, lack of prospects (personnel cuts at reorganization of enterprises, low wages) and the general economic decline in the country.

At present, the small towns of the territory perform residential, transport, administrative and organizational functions for the surrounding rural areas, but they lose their industrial function. Chita as a regional centre and a large city concentrates the population, the residential construction and the main volume of retail sales. The larger the city, the more developed its economy and infrastructure, the more stable the situation.

The discovered general trend of decline in the population of the cities of the territory for some of the cities is long-term. Thus, the dynamics of social and economic development in the cities of the territory shows the economic downfall in manufacturing (one of the basic economic sectors). The urgent problems of small cities are: the outdated infrastructure (water pipeline, sewerage, roads) and the undeveloped public amenities in residential areas, which also contributes to the outflow of the population.

The noted trends of demographic, social and economic development typical for the cities of the Trans-Baikal Territory allow for assuming that the decline in population will further determine the course of their development which is facilitated by a reduction in the measures to strengthen the economy. This is particularly the case for small towns. These phenomena indicate a crisis situation. In general, the Trans-Baikal Territory belongs to the depressive regions. The closure of enterprises and the decline in production in the 1990s led to a reduction in employment, increased unemployment and a decrease in household incomes, which led to the negative demographic and economic processes that are currently observed. In the cities of the region, the natural decline of the population is intensified by the impact of the migration outflow. In this connection, measures should be taken to overcome the negative trends and to improve the situation in the economy – the creation of new jobs and social protection measures for the population.

Cities are considered as part of the system of resettlement of municipal districts, so their development should take into account the expansion and strengthening of ties with the neighbouring settlements. All cities of the territory have similar problems to different extents. The majority of towns are located outside the influence area of the territory centre (located at a distance of hundreds of kilometres); this holds down the establishment of connections with the centre and it is an external factor limiting their development. The transport function of cities is of special importance. The availability of railway stations in cities is their competitive advantage, as it provides employment to the population.

Conclusions

The processes shown in this paper indicate the “shrinkage” of the social and economic sphere of the cities of the region, the territorial consequence of which is the “depopulation” of the territory. In the existing concept of “compression of space”, Ridevsky (2010) singled out three models in the perception of geographers: the implosion of space, the polarization of space and the reduction of economic oecumene. The latter is a process associated with the depopulation of the territory and a decrease in the intensity of its economic use. Implosion is understood as a communicative contraction associated with the development of means of transport and communication, while polarization as a process of concentration of socio-economic resources and phenomena in large urban centres. The theory of representations about the centers and periphery of the socio-economic development of the territory is connected with polarization. These models are manifested in the Trans-Baikal Territory (including its cities), being characterized by a decrease in population and intensity of economic use.

When considering the prospects of cities with a single-industry (Baley, Krasnokamensk), the population size is very important. The closure of production generates unemployment and social problems for the vital activity of the population in small settlements in the case of a waste deposit and a high migration outflow is most likely awaited by the prospect of their extinction or

loss of the status of the city. Large-sized single-industry cities, in which the process of narrowly specialized economy covers a large number of the population, have a high probability of social explosions and difficulties in the economic instability of their city-forming enterprises. The development of alternative industries (the diversification of the economy through the implementation of projects in the economy, and non-contiguous activities of the city-forming enterprise) is the most difficult and important point in solving the problems of single-industry towns (Gurova 2015).

To overcome the crisis phenomena in the economy, it is necessary to take into account the local characteristics of each city of the region: natural resources, economic resources, and the study of the possibilities of the city's investment attractiveness. For the large settlements, the likelihood of attracting federal financial support is higher. To date, the implementation of investment projects (involving investment) is planned only in Krasnokamensk, in which the construction of new plants involves the creation of new jobs. As previously emphasized (Animitsa et al. 2010), it is necessary to stop the reduction in production volumes by investments, but they should be sent not only to the reconstruction of enterprises, but also to industries that meet the current needs of the population: processing of crop and livestock products; individual tailoring of clothes and shoes; production of building materials from local raw materials (wood, stone, sand); various services, including recreational, tourist, information. For small towns, this form of development of economic activity as a small business is more real and therefore especially significant (Marshalova and Novoselov 2004). However, in small towns the shortage of local budget funds does not allow to fully implement the financial support for small businesses.

The further development of the manufacturing industry through expanding the production and the sales of products, the creation of conditions for business growth, and improving the living conditions of the population are measures to stabilize the situation in the cities of the Trans-Baikal Territory and other regions. However, the experience of the Trans-Baikal region shows that the problems of shrinking cities cannot be quickly resolved.

In future city studies, when understanding the motivations of population migration, it is possible to study the ways of attracting the city for the local residents through sociological surveys. But this is a topic for a separate study.

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Correspondence: Institute of Natural Resources, Ecology and Cryology, Siberian Branch of the Russian Academy of Sciences, PO Box No. 1032, 16-a, Nedorezova Str., Chita, the Trans-Baikal Territory, 672002, Russia

Email: lesg@bk.ru

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COOPERATIVE GAME THEORY APPROACH TO ESTABLISHING A LANDSCAPE AGREEMENT

Kenichi **SHIMAMOTO**
Konan University, Japan

Abstract: As the need for a participatory approach towards a sustainable landscape development grows, this paper has applied the cooperative game theory to analyse the mechanism of entering a landscape agreement which requires the participation and initiative of local residents and stakeholders. The results confirmed that a landscape agreement only becomes possible with a certain level of supporters and the optimal situation is when all participants agree. Moreover, the possibility of free riders, which would prevent reaching a universal agreement, was also confirmed. The effect of government subsidies for landscape considerate building and the enforcement of penalties for building without were also examined. As a result, we learned that subsidies and the enforcement of penalties influences the number of supporters required for the landscape agreement and in preventing free riders.

Key Words: *landscape agreement, subsidy, penalty, free rider..*

Introduction

Landscape change is a result of the dynamic interaction between natural and cultural forces in the environment and adapting to the changing societal demands (Antrop 2005). Thus, sustainable landscape planning and development does not only require landscape protection, but also the participation of the local residents in shaping the landscape (Buchecker et al. 2003). However, it is not until recent years that local stakeholders have an opportunity to play a role in landscape planning. Landscape planning is now shifting from the traditional top-down approach into a bottom-up and integrated approach involving the participation of local stakeholders (Sevenant and Antrop 2010, Butler and Åkerskog 2014). The European Landscape Convention (Council of Europe 2008) also recognises the importance of a participatory approach in landscape planning. Japan is no exception. Tough in the past, it has taken a uniform development approach across the nation with emphasis on development and liberal building regulations[1)] and landscape consideration was not a priority at the time[2)] (Saita et al. 2014). However, in 2004, the Landscape Act, which encourages the consideration of the landscape in developments was established. Article 81 and 91 of this Act encourages the formation of landscape agreements as an effective measure to preserve and develop landscapes with the involvement of the local residents and stakeholders[3)] (Hoshi and Kawasaki

1) An owner has the rights to freely use, obtain profit from and dispose of the thing owned, subject to the restrictions prescribed by laws and regulations (Civil Code, Article 206). Hence, land owners are able to build freely on their land. However, lands are connected and if landscapes were to be considered common property to all citizens, as a principle, a certain level of restrictions or adjustments to interests should be allowed as a public law.

2) For example, from the first National Comprehensive Development Plan to the second National Comprehensive Development Plan, the development of foundations for economic activities such as industries and transportation infrastructure were promoted. Concerning the landscape, it was not until the 1990s that landscape ordinances in regions were actively established and it took until 2004 for the Landscape Act to be established on a country level. However, with the Act on Special Measures concerning the Preservation of Traditional Scenic Beauty in Ancient Capitals established in 1966 to protect Kyoto, Nara and Kamakura, historical buildings and landscapes have been actively preserved from the 1970s (Sato 2011).

2014). A landscape agreement is a system that enables the local residents and other stakeholders to establish building restrictions within a landscape planning area in order to formulate an advanced and detailed standard for the landscape[4]. This includes buildings and the environment such as architectural structures and other structures, woodlands, meadows, forestation, outdoor advertising and farmland. Hence, a landscape agreement has significance since it provides the local residents and stakeholders with the ability to proactively protect and plan the landscape of the community by establishing landscape restrictions[5].

This paper has studied the landscape agreement which is a participatory method for local stakeholders to be involved and take ownership concerning the landscape. Past studies on landscape have focused on the hedonic pricing model to place a value on landscape features. Since the amenity value of landscapes often lack a market price, these studies attempt to quantify the monetary value of landscape features such as green space (Geoghegan et al. 1997, Garrod 2007, Kong et al. 2007, Sander and Polasky 2009). With regard to participation, since landscape is an issue which affects the whole population and the care for the landscape requires collaboration between a wide range of individuals and organisations, the need for a participatory method to landscape planning is recognized and there are extensive studies on effective approaches and case studies from around the world (Buchecker et al. 2003, Höppner et al. 2007, Valencia-Sandoval et al. 2010, Conrad et al. 2011).

This paper has focused on the mechanism of entering into a landscape agreement using the cooperative game model for analysis. To the best of my knowledge, the cooperative game theory has not been applied to landscape agreements, though it has been used to study environmental issues such as pollution and global warming. For example, Carraro (1999) focuses on the challenges of achieving an international environmental agreement (IEA) which may not be profitable for all countries involved and the intrinsic instability of environmental agreements where free-riders are able to exist. There are extensive studies on IEAs using the tools of the cooperative coalition theory such as in the context of global warming (Chander and Tulkens 1995, 1997, Eyckmans and Tulkens 2003) and water management (Ambec and Sprumont 2002). IEAs are also analysed using the non-cooperative coalition theory to explain free-riding with the consideration of externalities, to identify the conditions of a partial cooperation and to find methods to discourage free-riding. For example, Carraro and Siniscalco (1998) discuss the mechanisms and strategies aimed at offsetting the incentives to free ride. However, at the international level, there is no authority that could implement and enforce environmental policies on sovereign states so the agreements need to be self-enforcing (Ioannidis et al. 2000). Further research has been conducted on how transfers can be used to the success of a self-enforcing agreement (Carraro and Siniscalco 2001, Bosello et al. 2003, Altamirano-Cabrera and Finus 2004, Carraro et al. 2006, Eyckmans and Finus 2006). Landscape planning and agreements can be implemented on a local level and addressed by the existing government bodies. From this perspective, applying the cooperative game theory to landscape agreements should be a unique addition to environmental studies, as well as landscape studies where research that applies the cooperative game theory is limited. Shapley and Shubik (1969) consider the external economies and diseconomies in the cooperative game and remarks on the possibility of taxation or subsidization schemes to restore optimality to the competitive market. This paper has studied this possibility and it has included in the model the impact of incentives to improve the landscape and penalties to promote landscape consideration. Subsidies may have the ability to work as an incentive to promote a certain

3) Though landscape ordinances have been led by local governments to tackle landscape issues, with the lack of supporting laws, they were limited to being administrative guidance and enforcement measures were not possible (Shimada 2013).

4) For example, the design of buildings and structures including colour and material.

5) Since landscape agreements are based on the Landscape Act, they are legally binding compared to the local government landscape ordinances or a normal agreement.

action and a number of studies have been conducted on its effectiveness in economic and urban policies (Lindborg et al. 2008, Brunner and Huyton 2009, Wang et al. 2015, Zhao et al. 2016, Zhuo and Wei 2017). They are also being used to promote landscape agreements in Nagaoka, Japan, and there is a country side landscape subsidy applied in Iga, Japan. Penalties can play an important role in preventing certain illegal activities (Tanzi 1998). It is widely applied in the US to protect farmlands from being converted to nonfarm use (Wunderlich 1997).

The results have confirmed that the landscape agreement can only be formed when a certain level of supporters exists and the optimal situation is when there is a universal agreement. On the other hand, the possibility of the existence of free riders has been also identified, which can be the cause of preventing a universal agreement. This has led to the application of the cooperative game model to examine the effect of subsidies to promote landscape consideration and the effect of the enforcement of penalties for non-consideration and their contribution in promoting landscape agreements and restricting free riders. It has found that subsidies and enforcement of penalties enabled landscape agreements to be formed with a minimum level of support. The number of free riders was also controlled.

The remainder of the paper has been organised as follows. Section 2 applies the cooperative game approach to landscape agreements examining the effect subsidies and penalties have on the number of supporters of the landscape agreement and the number of free riders. Section 3 provides the results and conclusions.

Methodology

We have considered a landscape planning area. In this area, if households plan architecture that take the landscape into consideration before the construction starts, the cost per unit area is U yen for each household. On the other hand, if the construction starts without taking the landscape into consideration, the cost such as from external diseconomy may be incurred. For example, according to the Broken Windows Theory (Wilson and Kelling 1982), the deterioration of the environment can have a number of negative impacts such as increased crime, decline in sanitation levels leading to further deterioration of the environment and a decline in land prices. Therefore, the burden of the cost for the improvement will fall on the households. We have assumed this cost to the households to be V yen per unit area. If the construction of the household x did not take the landscape into consideration, then the cost for improvement per unit area for each household is xV yen.

Results and Discussion

Here, the set of players of the cooperative game model is defined as N. The subset of players within the set will be coalition S and any other coalition has been represented as N-S. In this case, the number of members within coalition S will be s and the number of members in coalition N-S will be n-s. The cost function for each situation where coalition S and coalition N-S build with or without landscape consideration is represented in Table 1 below. The first equation in the top left of Table 1, sU, refers to the cost to coalition S when both coalition S and coalition N-S build with landscape consideration.

The second equation, $(n - s)U$, indicates the cost to coalition N-S, when both coalition S and coalition N-S build with landscape consideration. The first equation in the top right, $s\{U + (n - s)V\}$, represents the cost to coalition S, when coalition S builds with landscape consideration and coalition N-S does not. Accordingly, the second equation of the top right, $(n - s)^2V$, refers to the cost to coalition N-S, when coalition S builds with landscape consideration and coalition N-S does not. Next, concerning the first equation on the bottom left,

s^2V, it indicates the cost to coalition S when coalition S does not build with landscape consideration and coalition N-S does. The second equation on the bottom left, (n - s) (U + sV), refers to the cost to coalition N-S, when coalition S does not build with landscape consideration and coalition N-S does. Finally, the first equation on the bottom right, snV , represents the cost to coalition S when both coalition S and coalition N-S does not build with landscape consideration. The last equation on the bottom right, (n - s) nV , indicates the cost to coalition N-S when both coalition S and coalition N-S does not build with landscape consideration.

Table 1

The cost function for each situation

		N – S	
		Landscape Considerate	Landscape Inconsiderate
S	Landscape Considerate	$sU \quad (n-s)U$,	$s\{U+(n-s)V\} \quad (n-s)^2V$,
	Landscape Inconsiderate	$s^2V \quad (n-s)(U+sV)$,	$snV \quad (n-s)nV$,

When the cost to coalition *S* is greater when coalition *S* builds with landscape consideration and coalition *N-S* does not; than the cost to coalition *S* when both coalition *S* and coalition *N-S* do not build with landscape consideration,

$$s\{U+(n-s)V\} > snV$$

is derived and the following has been obtained:

$$s < {}^{U}/_{V} \tag{1}$$

In other words, this implies that when the number of supporters of the landscape agreement is less than a certain level, the landscape agreement is not established. For example, it identifies that a landscape agreement is not formed when the number of supporters of the landscape agreement is less than the ratio of the cost of building with landscape consideration to the cost of building without. On the other hand, when the cost to coalition *S* when coalition *S* builds with landscape consideration and coalition *N-S* does not is less than the cost to coalition *S* when both coalition *S* and coalition *N-S* do not build with landscape consideration,

$$s\{U+(n-s)V\} < snV$$

is derived and from $n \geq s$, the following is obtained:

$$n \geq s > {}^{U}/_{V}. \tag{2}$$

Hence, this suggests that only when the number of supporters of the landscape agreement is over a certain level, the landscape agreement is established. Furthermore, it has confirmed that when the number of supporters of the landscape agreement is greater than the ratio of the cost to build with landscape consideration to the cost of building without, the landscape agreement

is formed. Moreover, the greater is the number of supporters of the landscape agreement, the cheaper is the cost of each household to improve the deterioration of the landscape. This shows that the most favourable outcome is when there is a universal support of the landscape agreement. However, a universal agreement in the area is not always attainable. We have next attempted to examine the conditions for not achieving a consensus with all households in an area.

Here, we have first assumed that coalition *S* was formed and a landscape agreement was established and the buildings with landscape consideration were conducted based on this. The cost to the remaining coalition *N-S* to build with landscape consideration and the cost to build without will be $(n-s)U$ $(n-s)^2V$ respectively. When the cost of building with landscape consideration is greater than building without consideration, the following has been obtained:

$$(n-s)U > (n-s)^2V \tag{3}$$

(3) can be rewritten as follows:

$$n-s < U/V. \tag{4}$$

Hence, on the basis that there is a coalition *S* that builds with landscape consideration, and the number in the remaining coalition *N-S* is less than the ratio of the cost of building with landscape consideration to the cost of building without, it suggests that coalition *N-S* will not form a landscape agreement.

From these results, we have learned that there is a case where the cost to coalition *S* is less when it builds with landscape consideration than without and the cost is cheaper for coalition *N-S* to build without. In this case, if we consider that coalition *S*, building with landscape consideration provides an external economy to the local area which impacts coalition *N-S*, then coalition *N-S* can be considered a free rider. From this, the dominant strategy for each coalition *S* and coalition *N-S* will be (building with landscape consideration, building without landscape consideration) and this strategy becomes the equilibrium point. In other words, this identifies the possibility of two groups emerging, one that supports the active consideration of the landscape and one that is passive. This suggests that the group that actively supports building with landscape consideration will not exceed the border of *u/v*. Hence, a universal support of the landscape agreement will not be formed which is considered a shortcoming of landscape agreements.

Here, in order to simplify the conditions of the establishment of landscape agreements, we have considered the following policies. First, to encourage building with landscape consideration, the implementation of a subsidy to reduce the burden to each household is needed. The subsidy will be provided based on a standard rate *h* which is applied to the per unit area cost of building with landscape consideration. Hence, the cost to each household will be *U*(1 - h). The second policy is the implementation of a penalty when building without landscape consideration. The penalty cost has been applied at a standard rate *p* to the per unit area of cost of building without landscape consideration. Hence, the cost to each household will be *v* (1+p) .

In the next section, we have analysed these cases where the implementation of subsidies and penalties are both introduced. When both subsidies and penalties are introduced, coalition *S* and coalition *N-S* may each build with or without landscape consideration. Hence, the cost function for each situation is represented in Table 2 below. The first equation in the top left of

Table 2, $sU(1-h)$, refers to the cost to coalition *S* when both coalition *S* and coalition *N-S* build with landscape consideration. The second equation, $(n-s)U(1-h)$, indicates the cost to coalition *N-S*, when both coalition *S* and coalition *N-S* build with landscape consideration. The first equation in the top right, $s\{U(1-h)+(n-s)V(1+p)\}$ represents the cost to coalition *S,* when coalition *S* builds with landscape consideration and coalition *N-S* does not. Hence, the second equation of the top right, $(n-s)^2V(1+p)$, refers to the cost to coalition *N-S,* when coalition *S* builds with landscape consideration and coalition *N-S* does not. Next, concerning the first equation on the bottom left, $s^2V(1+p)$, it indicates the cost to coalition *S* when coalition *S* does not build with landscape consideration and coalition *N-S* does. The second equation on the bottom left, $(n-s)\{U(1-h)+sV(1+p)\}$, refers to the cost to coalition *N-S,* when coalition *S* does not build with landscape consideration and coalition *N-S* does. Finally, the first equation on the bottom right, $snV(1+p)$, represents the cost to coalition *S* when both coalition *S* and coalition *N-S* does not build with landscape consideration. The remaining equation on the bottom right, $(n-s)nV(1+p)$, indicates the cost to coalition *N-S* when both coalition *S* and coalition *N-S* does not build with landscape consideration.

Table 2

The cost function for each situation when there are landscape policies (subsidies and penalties)

		N-S	
		Landscape Considerate	Landscape Inconsiderate
S	Landscape Considerate	$sU(1-h)$, $(n-s)U(1-h)$	$s\{U(1-h)+(n-s)V(1+p)\}$, $(n-s)^2V(1+p)$
	Landscape Inconsiderate	$s^2V(1+p)$, $(n-s)\{U(1-h)+sV(1+p)\}$	$snV(1+p)$, $(n-s)nV(1+p)$

When the cost to coalition *S* is greater when coalition *S* builds with landscape consideration and coalition *N-S* does not; then, the cost to coalition *S* when both coalition *S* and coalition *N-S* do not build with landscape consideration, $s\{U(1-h)+(n-s)V(1+p)\} > snV(1+p)$ is derived and the following is obtained:

$$s < {}^{U(1-h)}\!/_{V(1+p)}. \tag{5}$$

Proposition 1:
When there are subsidies and penalties and the number of supporters of the landscape agreement is less than the ratio of the cost of building with landscape consideration and 'the reduction in cost from the subsidy'; to the cost of building without landscape consideration and 'the cost from the penalty'; a landscape agreement will not be formed.

Hence, as in the case where there are no policies for building with or without landscape consideration, it implies that when the number of supporters of the landscape agreement is less than a certain level, landscape agreements will not be established. Furthermore, the number of supporters required for a landscape agreement is less when there are subsidies for households to build with landscape consideration and penalties for the lack of consideration than when there are no regulations or incentives.

On the other hand, when the cost to coalition *S* when building with landscape consideration and coalition *N-S* builds without is less than when both coalition *S* and coalition *N-S* builds without landscape consideration $s\{U(1-h)+(n-s)V(1+p)\} < snV(1+p)$ is derived and from $n \geq s$, the following is obtained:

$$n \geq s > {}^{U(1-h)}\!/_{V(1+p)}. \tag{6}$$

Proposition 2:
When there are policies such as subsidies and penalties in place and the number of supporters of the landscape agreement is greater than the ratio of the cost of building with landscape consideration with the reduction from the subsidy; to the cost of building without consideration with the added cost of the penalty; the landscape agreement is formed.

As in the case where there were no policies for landscape consideration, this implies that when the number of supporters of the landscape agreement is over a certain level, the landscape agreement is established. Compared to the case where there are no policies in place, we learn that a landscape agreement is formed with less number of supporters when there are subsidies and penalties in place to support the landscape considerate building.

Next, we have analysed the conditions for a landscape agreement not being established for coalition *N-S*. When a landscape agreement is formed to support building with landscape consideration and coalition *S* is formed which builds with landscape consideration based on the agreement, the cost to the remaining coalition *N-S* for when it builds with landscape consideration and when it builds without are represented by $(n-s)^2V(1+p)$ and $(n-s)U(1-h)$ respectively. When the cost of building without landscape consideration with the cost of the penalty applied is cheaper than building with landscape consideration with the reduction from the subsidy, the following applies:

$$(n-s)U(1-h) > (n-s)^2V(1+p) \tag{7}$$

It can be rewritten as follows:

$$n-s < U(1-h)/V(1+p). \tag{8}$$

Proposition 3:
When coalition S that builds with landscape consideration exists and the number of supporters of the remaining coalition N-S is less than the ratio of the cost of building with landscape consideration including the subsidy; to the cost of building without consideration including the penalty; the landscape agreement is not formed by the remaining group N-S.

Compared to the case where there are no polices, it suggests that there is less room for free riders.

From the above results, we have learned that compared to the case where there are no policies to support landscape considerate building, by providing subsidies to support landscape considerate building and enforcing penalties when building without consideration, the support of the landscape agreement is promoted and it is effective in controlling free riders from those who do not support the agreement.

Conclusions

As the need for a participatory approach for sustainable landscape planning and development has been recognised, there is an appetite to understand how local stakeholders can be encouraged to participate. The landscape agreements in Japan are such a method, but the success relies on the ability of the local stakeholders to come to an agreement and to reduce free riders.

This paper has focused on the mechanism of entering into a landscape agreement using the cooperative game model for analysis. The results of the analysis have confirmed that the landscape agreement can only be formed when a certain level of supporters exists and the optimal situation is when there is a universal agreement. On the other hand, the possibility of free riders has been confirmed which can cause the prevention of a universal agreement. Unlike the coalition game studies on international environmental agreements, where there is no authority that could implement and enforce environmental policies on sovereign states so the agreements need to be self-enforcing, landscape planning and agreements can be implemented on a local level and addressed by the existing government bodies. This has led to the further examination of the effect of subsidies for building with landscape consideration and the enforcement of penalties for inconsideration has on the ability to form landscape agreements and restricting free riders. As a result, it was found that compared to where there were no policies, subsidies and enforcement of penalties enabled landscape agreements to be formed with a fewer number of supporters and the number of free riders were also controlled. Furthermore, it was found that this effect was stronger when the size of the subsidy and penalty was greater. Hence, in order to increase the number of supporters of landscape agreements and control free riders, it is necessary to implement effective subsidy and penalty systems.

These results have the following policy implications. The first is the need to increase the capacity of providing subsidies which may be possible through the alignment and cooperation at the national, provincial and municipal levels as well as from the income of penalties. The subsidies may also be combined with other initiatives such as promoting the local region and economy where the colour, material, design and size of the development are taken into consideration to enhance the natural, cultural and historical landscape of the region. The increase in subsidies will also lead to the increased need of monitoring the actual development against the landscape plan. Concerning the penalties, in order to increase the effectiveness, there may be the need for the national, provincial and municipal government to establish policies that are legally binding and penalties can be enforced. It is especially important that qualitative indicators are stipulated with the quantitative indicators. National laws can define the framework and provincial measures can fill in the gaps in the national legislation and allocate financial responsibilities and lay down legal procedures. Practical guidelines for implementation such as a system to monitor and control the penalty system can be developed and administered at the municipal level. These results could also be applied to other landscape agreements with a participatory approach to increase its supporters. Further empirical analysis would be useful to test the robustness of the policy conclusions and to understand the optimal scheme for subsidies and penalties.

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Correspondence: Hirao School of Management, Konan University, 8-33 Takamatsucho, Nishinomiya, Hyōgo Prefecture 663-8204, Japan

Email: ken_japan51@hotmail.com

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BOOK REVIEWS

HANDBOOK OF ALTERNATIVE THEORIES OF ECONOMIC DEVELOPMENT

Edited by: ERIK S. REINERT, JAYATI GHOSH, RAINER KATTEL
Edward Elgar Publishing, Cheltenham, UK, 2016, 848 pp., ISBN: 9781782544661

Reviewed by ALEXANDRU GAVRIȘ
Bucharest Academy of Economic Studies, Romania

When I had the chance to review the first book on theories of development, I was exhilarated with the perspective to read and analyse Richard Peet and Helen Hartwick's (2009) work. It was not only essential as a reading, but life changing through the emphasize on radical thinking and practice in the academia. Although very detailed and wonderfully presented, the book left me with the sense of a work from which something is missing. And that missing part was partially found by reading the "Alternative Theories of Economic Development" book. With such perspective in mind, I focus now on this second book that deals with the very same topic of development, but from an economic line of thought. Before making the standard review, I wanted to address this personal experience and, in the next paragraph or so, to contextualize the framework in which economic development moves within the current time frame. Then, I analyse the book not through its different parts, but as a whole as, I hope, editors intended to form: a book that shows diversity, but needs unity in understanding and tackling development by the de-globalization that researchers should take care of as an intellectual agenda.

What is economics today? For most of its common narrative, economics appears to revolve around the invisible hand, equilibrium, liberty of trade, entrepreneurship and so forth, all of these and many others supported by complex mathematical models that fear anyone not within the field trying to decipher what are they are good for. Of course, this might be an uninformed perspective of someone discontent with the current economic and social development throughout the world or affected by the super accelerated pace at which the almost everything is developing. On the other hand, it is true that mainstream economics relies too much on the neoclassical perspective which continues to offer great success when applied to developed countries. Yet, applied to developing countries, mainstream economics successes are attributed to its core assumption and its wonderful liberalisation development, whilst failures are attributed to all sorts of problems that locals create (politicians, heterodox economists, even whole countries behaviour seen as institutions), unable to integrate different structural programs. Therefore, the debate on what is right or what is wrong is increasingly intense more that any other time in the past.

Within such context, more than ever before, we re-discover that economics stands for many other perspectives than neoclassical economics. Economics, as it was seen under different assumptions and beliefs, is a wonderful field – some would say it is an art – with many facets intensely scrutinised to help individuals and the world to advance towards a better stage of development. One such dimension stems out from the theoretical field of development where newly-old perspective rekindle the debate on how lagging economies might have developed or could develop under

different assumptions. It is what the book "Alternative Theories of Economic Development" does.

Indeed, the book offers an array of interpretations focused on the phenomenon of economic development within a critical and qualitative perspective where the focus stays within the historical and theoretical intense scrutiny. The editors (Erik Reinert, Jayati Ghosh and Rainer Kattel) compiled a wide selection of papers trying to address the bigotry of economic thinking that stems, as they explain in the introductory section, from the Eurocentric perspective (I would add US-centric also; see the authors compilation of major economists according to citations from page xxiv), English theoretical mindset on trade, German understanding on the role of religion and the economics thinking evolved from French Physiocrats thinking. And the problems grow further when one tries to address the little unknown topics to the English speaking audience, despite the influence had in the past or their resurface as better explanatory frameworks than the mainstream ones. Paradoxically, this is done within the main economic paradigm which promotes the liberalization of markets, including here that of ideas. As such, the papers assembled within the handbook bring back cases of a diverse geography and historical perspective on development, supplemented with revisited theories able to offer explanations to the current situations where mainstream economics, for some of its part, failed to offer satisfactory answers.

The geography of the selected cases and the authors writing about development are diverse and history accompanies that. The goal of the book is to show that development thinking and practice is not limited to the mainstream economics thinking, which fails in most peripheral countries where is is applied, but there are many gems that enrich the economic thinking and the world progress if we explore the world and history. Different case studies of development dissect Ottoman, Chinese, Latin, African, Northern Europe, Italian city-states development, being accompanied with specific issues of development such as development planning, legal, ecology, knowledge governance or deindustrialization, to name just a few. Moreover, the collection comprises somehow neglected economists who not only influenced the field, but laid foundations of a better understanding of structural transformations when criticism and theoretical context are well connected. Overall, the handbook tries to catch as much as it can from what it is considered to be a suppressed angle of economic development.

The book, therefore, explores the theoretical cleavage that marks development economics today when one limits oneself to the mainstream tradition. It illuminates the reader with its in depth and diverse contexts where economy and development were seen focused on people and less marked by biases or abstractization, which ignore or refute much of the real world diversity. But the way in which development thinking presented the paths towards the future remained somehow unattractive with less to gain on short term and with an accent on theory, instead of easily formalized methodological abstractization. Maybe that is why, core traditional economic development thinking found to be marginalized, failing to become fully formalized or to reach a certain level of abstraction that would facilitate presentation to and acceptance from politicians and international audience alike. However, the editors of the book are aware of the situation, offering this handbook as unbiased alternative with as much possible focus as it can be on diversity of thinking and origins.

The result emerges as a very diverse collection of perspectives analysing development economics structured into three parts, where 50 scholars assembled over 40 chapters. The first part (16 essays) attempts to reposition the history of economic through and history of economic policy, arguing for better insights towards the origins of economic development (cases of Italian state-cities) and setting the scene to what are the foundations of economic development through different angles, established even before the English fore-fathers of mainstream economics. Then within the second part (9 essays), the book brings to attention different approaches to understanding development with the help of

selected schools of thoughts (Marxism, Feminism) and scholars who marked development economics (C. Freeman, A. O. Hirschman, M. Kalecki). Finally, the discussions detail the development thinking perspectives, taking a closer look on particular aspects (like intellectual property rights or terrorism), some of them narrower in relevance, but well linked to the main topic. The handbook ends with an epilogue integrated into part three (15 essays), a critical and dark approach if we look on what economics has accomplished when it failed to give credit to the local context and historic roots of development by focusing too much on poverty alleviation, instead of studying development processes.

The issue might look grim, but a closer inspection of the book chapters and, especially, the epilogue allows us to understand that the future is bright. Some solutions proposed by the editors and the authors of the epilogue might stand in the qualitative feature of economic thinking spanning out from Renaissance and Enlightenment. But what really remains is to decontaminate ourselves from the utopias set on us and to refocus on the societal dimension that, nowadays, is increasingly replaced with the cult of profit-making or profit-laundering (see the recent case of Panama Papers or the evolution of bitcoin evaluation). As authors state it in the Epilogue: *"With neoclassical economics the public interest – society – ceased to exist as a unit of analysis. This opened up for today's view – inspired by Gordon Gekko – that all greed is good, even the present greed of the financial sector which creates huge private wealth while shrinking the real economy to the detriment of the public interest"* (p. 781).

Given the length of such a book (786 pages plus 26 pages of index), and some would add, even the weight of it, certain caveats are understandable. They are signaled by the editors also; certain important parts on development (like environment or the role of population) are missing because of the problems signaled in the first part of the review: the hegemony of a certain way of thinking on development economics. Even so, when it was the case, the editors, with the help of the authors, addressed the problems through footnotes detailing certain important issues and signaled them accordingly with references to substantial works that elucidate one interested in the matter.

Yet, the book is not for newcomers. An amazing work, but one that targets a competent audience. Parts of the handbook require previously interest in the field and openness towards the historical approach. So, the book is not for early career students. Even so, I would advice students to give the handbook at least a second thought when they will have the chance to find it in a library, otherwise the price might be a bit too expensive for a regular buying. For me, it was illuminating the advice of Peet and Hartwick (2009, p. 19): *"reading and re-reading, reflexion and communication until you understand*", an approach used in situations like tackling with this book. And I still did not get all of it, so I think I have to re-read certain chapters and passages that were not yet unveiled to their fullest.

Another issues relate, maybe I read certain essays too fast, to the lack of homogeneity of certain approaches. Normally, an array of authors employ very different styles and unfortunately this is too visible in some parts. While the editors worked immensely to aggregate the diversity and to emphasize the alternatives, which are seen throughout reading the handbook, certain approaches appear to lag behind, hindering the cohesiveness of such a big project. I do not want to be misunderstood as the essays do not fit — they are amazing to me, but I would have enjoyed an introduction before each of the three sections connecting the main ideas of the respective parts. The structure could have been improved with a different sectioning maybe. Moreover, there are some inconsistencies with the length of certain issues. Some papers over-detail, while others limit themselves to highlighting only a few points that otherwise could have been extended in order to clarify the issues they embarked on. This might be due to the fact that some of the papers (12) recycle certain content from previously written materials or held public lectures. While some might find problematic this approach, I give credit to

editors for allowing authors to revisit important facets on development and to link them within the alternative paradigm.

In the end, I want to highlight a few citations from the book, parts that should define the future of many of us, regardless of affiliation, in times where we have to rediscover and re-read development. We need to re-discover the meaning of development, but also of ourselves; marked by a recent interaction with my students, I found myself in front of the "Urban Revolution", where Henri Lefebvre (2003) states: *"one of the most disturbing problems still remains: the extraordinary passivity of the people most directly involved"* (p. 181). So, next to this remains the problematization of the issue as it seen within the pages of the handbook:

"Finally, we, […], need to re-examine our own roles. Are we going to be politician-intellectuals or neutral scholars serving the state and imperialism, in one case consciously, in the other ignorantly? Or are we going to be public intellectuals, political enough to give expression to the hopes and fears of the masses, but intellectual enough to keep our distance from power-mongering" (p. 254).

and the answer is offered within the same essay:

"We cannot fight for a better world without understand the world better. For that, we need to take a longer view of history" (p. 254).

and elsewhere:

"[Structural change] can only be brought about with parallel mobilization and collective action […] at all levels of society" (p. 437).

I think I wrote enough. Now it is the time to revisit the book.

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Aims and scopes

Analysis of the urban and regional condition needs to be interdisciplinary. In reality, urban researchers usually tend to belong to a discipline reflecting their training whether as sociologists, geographers, planners or any number of subjects concerned with the study of space and place. Our training very often endorses an appreciation of how other disciplines explore the city. For the journal the acknowledgement of the many disciplines that concerned with understanding cities and regions will be indicated by the different disciplinary back-grounds reflected in the papers published. Articles will be published by geographers, sociologists, planners, economists, political scientists, to mention just few of the disciplines involved in urban and regional study.

The Journal of Urban and Regional Analysis plans to be a key outlet publishing topical articles dealing with cities and regions. In later issues we plan to include sections devoted to notes and comments as well as a policy section outlining and discussing state and non-state initiatives aimed at improving cities and regions, together with the problems confronted by their implementation.

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*** (1938-1941), *General Romanian Population and Settlements Census on December the 29th 1930*, I-X, ICS, Bucharest.

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