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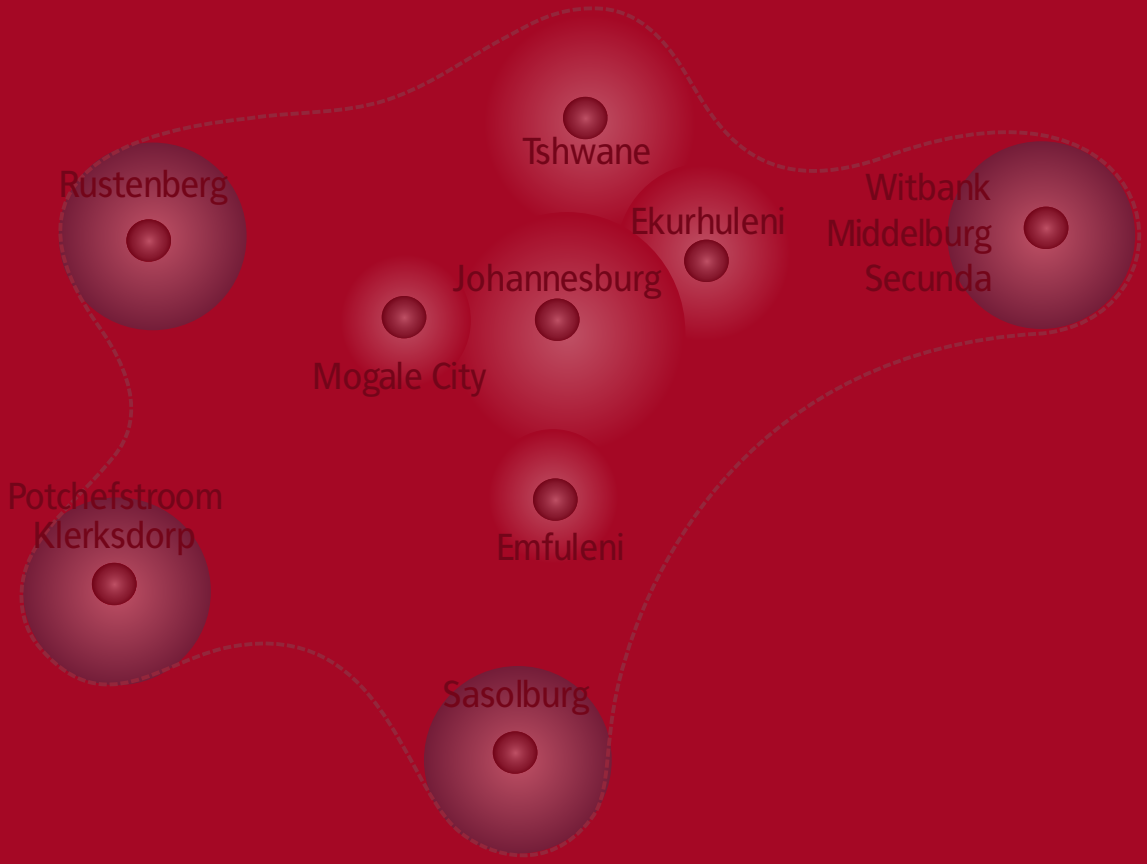

Researched and written for the GCRO by

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July 2010

GCRO Gauteng City-Region Observatory

GAUTENG PROVINCIAL GOVERNMENT

UNIVERSITY OF JOHANNESBURG

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Introduction

The Gauteng city-region (GCR) is a relatively new concept for South Africa, although the model has been growing in other parts of the world for over a decade. This paper considers some of the global debates about the importance of city-regions in the current economic and political context. It provides an overview of the concept and the context within which it has been deployed. Debates about the role of cities in the global economy are regarded. Some critical reflections on the city-region, both conceptually and in practice, are made along economic, social, ecological and governance dimensions. This forms the backdrop for an analysis of the growth of the GCR, again both conceptually and practically along the same dimensions, with an emphasis on two key drivers of the city-region, transportation and housing/settlement.

Part I: Conceptual Framework

Overview of city-region concept

Globalisation has been accompanied by a 'new regionalism', "rooted in a series of dense nodes of human labour and communal life scattered across the world" (Pillay, 2004:341). The rise of regionalism has coincided with the resurgence of the city as a territorial form (Ward and Jonas, 2004:2120). This regionalism, mainly built around core cities, is connected to processes of globalisation, since the nodes are interconnected in global flows of information, finance, services, resources and people (Robinson and Boulle, 2008). These regions have grown to the extent that they are starting to take on a definite identity and force as political and economic actors on a global scale, at times even transcending the power of national states (Pillay, 2004:341). Classic examples of city-regions are New York or London - these are not just big global cities, but are critical conduits and nodes for the flows of information, finance and skills that constitute the global capitalist economic system.

The basic logic of the city-region is that planning and organisation cannot be limited to the territorial extent of an individual city, but must take into account 'spaces of flows' (Castells, 1996, Francke and Ham, 2006)through the city, and that link the city to regional economies. These spaces of flow subordinate the 'spaces of place' that characterised previous forms of sub-national regionalism. That is, earlier forms of regionalism were based more on a geographical core-periphery model, with a centre dominating a surrounding periphery. Theoretically the new regionalism, by contrast, subordinates location for process. By this logic, cities that remain bound into a place-based identity become disconnected from power that is located in the processes - the flows - of the circulation of capital (commodities, finance and people). A shift to a global identity permits planners to identify, orient to, and tap into the vast streams of power that unceasingly flow through the cities.

An infrastructural spine is essential to tap into the stream of power.

Nevertheless, place remains important. The city will be transformed on the basis of what exists, including capital fixed in the land, which establishes the boundaries for future investment possibilities. An infrastructural spine is essential to tap into the stream of power. The infrastructure required is both physical (e.g. electric cables, cellphone and broadband transmitters, roads, buildings, water and sewerage pipes) and social, or what David Harvey (2006:399) calls a "human-resource complex". This includes administration, research, ideological functions, education and so on. This complex enhances the conditions for surplus value production while not generating surplus value itself. These infrastructures are part of the general overheads of capitalist production, and are often borne by the state when any individual capitalist enterprise cannot or will not perform them on its own (Aglietta, 1987:235-6). This gives rise to conflicts of interest between different fractions of capital: for example, between property owners and speculative finance capital. The former have fixed investments that need to realise exchange values (e.g. rent) for long enough to generate a return on the investment. The latter, in contrast, aim for the highest return on investments with the shortest turnover time. The picture

is not so simple, partly because of a growing tendency (supported by financial deregulation and liberalisation policies) for financial institutions to dominate in both spheres of accumulation. The relative balance of forces between fractions of capital is spatio-temporally specific, and requires concrete research and analysis. This issue of fractions of capital and their differential interests in the formation of global city-regions will be returned to later.

Cities are integrated differentially into these flows. Some cities have greater opportunities - and greater resources to take advantage of those opportunities - than others. The literature on city-regions develops a hierarchy of cities, with some considered to be more important than others. The Globalisation and World Cities Study Group divides cities into alpha, beta and gamma cities. Alpha cities include London, Paris, New York and Tokyo. Beta cities include cities like San Francisco, Brussels, Sydney and Sao Paulo. Johannesburg is a gamma city (cited in Gauteng Provincial Government, 2006:12). Turok (2008:4) provides a very useful graphic image of the relative importance of city-regions from a purely economic point of view. A map shows peaks of economic regional concentrations, with Japan dominant, followed by eastern US, Europe and the western US seaboard. Regional economic concentrations in the southare very insignificant, apart from Buenos Aires and Singapore. Gauteng is no more than a blip. The three-tier hierarchy is entirely based on each city's importance as a node in the flows of global power. The cities lower down the hierarchy could conceivably be removed from the network of flows without altering the structure of the network in any serious way. In contrast, global markets plummeted in the immediate aftermath of the attacks on the World Trade Centre in New York in September 2001, indicating the centrality of New York in the global space of (capitalist) flows.

In the south two types of cities predominate. The first type is cities coping with informal hypergrowth. These cities are characterised by rapid population growth, both through migration and natural increase; an economy heavily dependent on the informal sector; very extensive poverty, with widespread informal housing areas; basic problems of the environment and of public health; and difficult issues of governance. These are typical of the bigger cities in southern Africa. The second type is cities coping with dynamic growth. These cities face falling population growth and the prospect of an aging population, rapid economic growth and emerging environmental problems (Hall, 2007:2).

The city expands beyond its defined boundaries.

Given the intense flows of information and resources through cities, a purely territorial approach to planning and governance is increasingly untenable. The traditional city centre becomes physically too small to accommodate the expanding infrastructure and services required to perform its nodal functions. The city expands beyond its defined boundaries. In some cases, other cities or urban centres, originally located some distance from it, are incorporated into its sphere of influence. In other cases, locational and other advantages mean that some essential functions are located in one city and some in another. At the same time, organic processes of clustering or agglomeration (Scott et al., 1999) of economic agents enable greater operational flexibility and innovative capacity (Pillay, 2004:342) at a scale that follows an economic rather than administrative logic. City administrators and planners must align their functions with these new forms. In these circumstances, the formation of a city-region

incorporating all the territory and all the functions into one functional unit is a logical step. This has contradictory spatial consequences. On the one hand, the functional hinterland surrounding the urban core is absorbed into the core to form part of a mega city. On the other hand, the hinterland that is not functional to the purpose of securing control over global capitalist flows is more decisively excluded.

Olivier and Berrisford (2007:3) identify four approaches to thinking about city-regions. The first focuses on urban sector analysis and theory; the second emphasises policy development; the third considers the governmental, planning and services footprint of a functional region; and the fourth is based on the ecological footprint of an urban system. The challenge is to convert a theoretically progressive and integrated understanding of the urban system into practical plans. A balance must be struck between economic success, social improvement and ecological sustainability. The core approach is less emphasis on administrative boundaries but more on functional geography, both social and economic; less emphasis on competition between institutions, and more on collaboration; and a principle of co-operation internally so that the region is able to compete better externally.

...the metro would be the core containing higher order services...

The concept of 'concentrated deconcentration' was developed in the Netherlands in the 1960s to concentrate urbanisation in and around major cities, with opportunities for new growth to be offered in new towns as satellites around them (Van Der Burg and Dieleman, 2004:109-110). The aim was to keep the size of metropolitan areas down, while preventing urban sprawl. Sprawl was to be prevented because of the resulting crumbling of the demographic foundation of urban services and to prevent encroachment into the countryside, which was viewed as a necessary leisure space for urban dwellers (Goedman et al., 2008:8). The idea was that the metro would be the core containing higher order services, and that housing might be located away from, but within reach of, the core and those services. The national department established the policy and provided the subsidies, but implementation was in the hands of provinces, municipalities and private developers (Van Der Burg and Dieleman, 2004:110).

Both transport and housing policies were important for the Dutch urbanisation policies. The state played a big role in managing the location and construction of housing to align with the policy. It subsidised almost 80% of housing and land development (Van Der Burg and Dieleman, 2004:108). Initially housing was situated outside the city, but as transportation issues arose, policy was changed to focus housing within city perimeters or immediately adjacent to them (Goedman et al., 2008:10). Transport planning was first designed for greater use of private cars, as this was considered as bringing greater freedom to the individual. In the 1970s the damaging effects of rising car ownership became apparent and the state shifted the emphasis to building a public transport infrastructure (Goedman et al., 2008:7, 9). Later still, public transport was regionalised in an attempt to link a number of cities into a network with a good public transport system that would allow for the decentralisation of services to different urban centres while reducing the need for private transport (Goedman et al., 2008:10).In the cities in the South, housing and transportation are also two of the biggest challenges(Hall, 2007).

Critical reflections on city-regions

The concepts of 'city-region' and 'globally competitive city' are not neutral. They have been deployed and have gathered force in a particular period of the development of capitalism - understood not merely in its economic aspects, but in its social, political and economic totality. In many regards, the adoption of the city-region as a concept is a defensive response by the state in the face of the growing power of transnational capital, rather than a proactive, visionary stance as it is often presented. It is a response to shifting accumulation strategies and their consequent spatial reorganisations, often after the fact. These dynamics include tax flight through physical relocation and decentralisation in order to escape over-regulation and/or social disorder in the city centre; heightening economic duality and social division; and destructive competition inside the city (Olivier and Berrisford, 2007:5). The state is forced to respond to these trends as it attempts to manage the contradictions and tensions that arise.

The emergence of the city-region as a response to these dynamics does not arise from a single political orientation. As a number of authors note, the city-region is a contested concept and is in the process of construction(Harding, 2007, Parnell and Pieterse, 2008). The concept may encourage relational understandings and prompts useful questions about the links between employment locations, the geography of land and property values, labour and housing markets, transportation systems and patterns of social segregation rather than providing simple administrative answers (Harding, 2007). However, as much as it would be an error to assert that the city-region is always and everywhere a neo-liberal project, it would equally be an error to assert the opposite i.e. that the city-region automatically has progressive potential. It is better understood as a dynamic and contested process. Its importance will differ in different contexts and an analysis therefore needs to be carried out in the locally specific context within which it is being deployed(Keil, 1998, Brenner, 2002, Brenner and Theodore, 2002b, Sokol, 2004).

Certain structural changes in the global economy that shape the adoption of new forms of regulation are widely accepted as being applicable. We might question the existence of a globally standardised, stable regime of accumulation called Fordism in the period roughly between 1945 and 1972. But we can acknowledge that the relatively stable economic and political structure of capitalism since the Second World War (including the counterweight of the Soviet bloc) was destabilised from the early 1970s. The causes of this destabilisation are contested and, more importantly, so are its consequences and the future trajectories arising from it. But it will not be contentious to say that the seeds of destabilisation were situated inside the dynamics of capitalist accumulation. These include declining profitability, growing inflexibility in forms of regulation (including labour market regulation and the welfare state), the increasing transnationalisation of production and commodity networks, and the growth of new technologies, especially in the information and communications fields (Lipietz, 1994).

It can further be stated that the orthodox responses to the gathering crisis in the prevailing 'regime of accumulation' managed to resolve some of these issues in the short-term, but at the cost of deepening longer-term contradictions, of which the current global economic crisis is merely the latest manifestation (Brenner, 2009). We can add, with just slightly more contention, that the response to the crisis of the 1970s was a short-term, practical response to immediate aspects of

the crisis and not a response based on long-term planning. That is, what we understand today as neo-liberalism did not begin as a fully-fledged ideological agenda. The initial response was based on economic and governance restructuring to enhance worldwide technical co-operation and interlinked markets with an appropriate support system. The operationalisation of this solution required a suppleness and flexibility that could only be ensured at the local level (Lipietz, 1994:23).

Efforts by governments to realise this solution defined trajectories that shaped future actions, and evolved over time to respond to contradictions, crises and contestation that emerged in the process. Thus 'neo-liberalisation', as a process rather than a thing, is best understood as a political project rather than an inevitable outcome of capitalist development. In the initial phase of 'proto-neo-liberalism' in the early 1970s, preservationist and modernising alliances struggled to influence the form and trajectory of economic restructuring. In the 'roll-back' neo-liberalism of the 1980s, the state and public sector were placed under attack, with privatisation and deregulation the mantras. The consolidation of 'roll-out' neo-liberalism in the 1990s sought to overcome a number of growing contradictions in the project, including deepening social and ecological crises (Brenner and Theodore, 2002a:373-4). It is important to emphasise the plurality of trajectories, rather than a single trajectory, since these processes were more or less effective and strong in different localities at different times, leading to a range of experiences in the era of 'globalising neo-liberalisation'.

The role of cities has grown in importance, and contested neo-liberalisation has enhanced this role.

The broad features of the neo-liberal political project are well-known, and include a shift from Keynesian counter-cyclical policies as a means of stabilising economic downturns or crises towards processes of 'creative destruction' and concentration rooted in market forces; the replacement of welfare systems with low-paid, insecure work and the encroachment of market forces into the provision of services previously underwritten by the state (cost recovery and user pays principles); and a shift from regulation in the national state towards deregulation and re-regulation at other scales and involving other actors - the latter signifying a shift from government to governance as the prevailing concept of regulation (Brenner and Theodore, 2002a, Jessop, 2002).

It is within the context of this contested globalising neo-liberalisation that states must balance the modern imperatives of economic development (mainly understood as economic growth), social reproduction and ecological sustainability. These three imperatives are interlinked, and often in conflict with one another. The role of cities has grown in importance, and contested neo-liberalisation has enhanced this role. In recent years urban areas have become home to more than half the world's population for the first time in history (Hall, 2007:1). This statement needs to be mediated to undermine the impression that the rural is now history: first, the rural population is likely to stabilise at around 3.25 billion people; second, many of those considered to be urbanised do not and will not live in cities at all, but will be spread across numerous urbanised settlements too small to be considered as cities (Dodman and Satterthwaite, 2009:12). Urbanisation is also uneven, with far higher rural populations in industrially underdeveloped countries. Nevertheless, the world's cities still contain a very large proportion of the global population, including cities in the 'global South'.

Cities and the 'new' economy

National and local states are required to secure and maintain the conditions for economic development, which is overwhelmingly understood to mean economic growth and expansion. State actors may ask the question about how the benefits of economic development are distributed amongst the population. They might question whether the existing forms of economic development are appropriate, and how to change these. They might even go so far as to query whether economic growth and expansion is the most appropriate trajectory of economic development. However, answers to these questions are constrained by the reality that the state has limited control over economic decisions, which are privately determined. Although the state has the authority to regulate privately-made decisions, processes of neo-liberalisation have weakened the ability of state actors to do this in the public interest. Ideologically and discursively, the state is (generally successfully) portrayed as bureaucratic, inefficient and representative of its own sectional interests. Materially, processes of deregulation, privatisation and liberalisation have meant capital is freer (though not entirely free) to select its investment locations based on the 'friendliness' of the regulatory climate.

New information and communications technologies (ICTs) have had profound effects on the structure of global and national economies. These include further enhancing the importance of knowledge and information in the commodity cycle, and the increasing commodification of knowledge. However, claims that a fundamental shift has taken place from mass production to a knowledge-based economy are questionable (Florida, cited in Sokol, 2004:5). Knowledge production and management are harnessed in new ways to the cause of more efficient capitalist production, most of which remain mass-based and standardised. Much has been made of the potential democratising effects of the rise of the knowledge-based economy. However, suggestions that the knowledge economy has the potential to benefit all equally, are abstracted from the prevailing inequality of social relations, and ignore questions about the types of knowledge that are privileged, or the way knowledge is used in concrete processes of value-addition, accumulation and even regulation.

Much has been made of the potential democratising effects of the rise of the knowledge-based economy.

Whether in the material or the knowledge economy, processes of transformation remain bound within the constraints established by previous rounds of accumulation, creating at least some level of path dependence. A break with earlier technological mixes and spatial configurations often entails massive devaluation, but "producers are firmly pinned down for long time periods through reliance upon fixed capital of long turnover time embedded in the land itself" (Harvey, 2006:388, 394). This creates an ongoing tension between newly forming capital and the stagnation of past investments, i.e. a tension between forms of capital in its different manifestations. Stagnation and devaluation is a social determination, in that the question is not whether profit can be made or not, but that profit falls below the average across all types of capital. Therefore even profitable enterprises may fall by the wayside if they are not profitable enough.

The 'new regionalism' focuses on spatial agglomeration, localisation economies, regional path dependence, specialisation, industrial districts and clusters (Makoni et al., 2008:297). Agglomerations of high-value 'knowledge sub-economies' (cities or city-regions) build on

previous rounds of long-term investment. So those regions that were already close to international transport hubs or were well-endowed with communication and information infrastructure tend to consolidate their position at the leading edge (Sokol, 2004:10). On the other hand, cities or regions that lagged in the past are liable to fall further behind, reinforcing their role as areas of low value-added production. This results in a polarisation of space-economies across the world, even if the trends here are not as magnified as described (Sokol, 2004:11), an 'archipelago' economy where agglomeration advantages gain in importance, national and international urban hierarchies are increasingly 'stretched' and the gap between more and less successful city-regions widens (Harding, 2007:448). This raises the question about whether city-regions are economically successful because they are knowledge intensive, or whether they are knowledge intensive as a result of being economically successful.

The growth of the region and city as functional scales does not mean the gradual elimination of the nation-state.

In the context of crisis management, the city scale has taken on specific importance in securing conditions for global accumulation. The region is a nexus of top-down and bottom-up planning processes, with strategic region-scale planning considered critical for growth and development (Makoni et al., 2008:295). However, this is not automatic and there is much debate about how important the city scale really is. The growth of the region and city as functional scales does not mean the gradual elimination of the nation-state. The national state continues to play a critical role in animating regional development through active reinvestment in city-regions, including ongoing investment in infrastructure, health, education and others (Ward and Jonas, 2004:2120).

In practice, processes of 'creative destruction' also underpin city restructuring under neo-liberal pressure. Central government supports have been dismantled, but are replaced with the devolution of new tasks and responsibilities. Fiscal austerity from the central state is accompanied by new forms of local revenue generation. The welfare state has been dismantled but replaced with community-based and private sector forms of service provision. Accountability and hierarchical, bureaucratic forms of the state have been broken down, but replaced with new networked forms of local governance based on public-private partnerships (PPPs). Decontextualised 'best practice' models replace home-grown solutions to localised market and governance failures. For everything destroyed, something is created to replace it. The overall logic has been the replacement of the public sector with the market (Brenner and Theodore, 2002a:369-372). As noted, however, contingent conditions characterise cities and these processes of neo-liberalisation are uneven and contested.

The built environment and urban form have been transformed in these processes. This has occurred unevenly, depending on local context, but some fairly common features stand out. On the 'creative' side (i.e. the creation of new processes, spaces and structures), free trade zones and other deregulated spaces in major urban regions were created, as were new development areas and industrial spaces at sub-national level. New strategies aimed at rechannelling economic capacities and infrastructure investments into globally connected regional agglomerations were mobilised. Large-scale mega-projects intended to attract corporate investment and reconfigure local land-use patterns were constructed. New privatised spaces of elite or corporate consumption were created,

as were gated communities, urban enclaves and other 'purified' spaces of social reproduction (Brenner and Theodore, 2002a:371). Underlying these trends is an 'architecture of fear' which is partly a consequence of the privatisation of security where each person is responsible for their own security. Those with resources can afford to build citadels of protection for themselves, while those without resources become more exposed to violence and lawlessness.

On the flipside, the destructive processes included the elimination of, or increased surveillance over, urban public spaces. There has been a decline in the quality and security of publicly-owned spaces (parks, streets, etc.) which have been abandoned by the state and become insecure refuges for the poor (Murray, 2008). Working class neighbourhoods were destroyed to make way for speculative redevelopment, the gentrification frontier was rolled forward (both processes of creative destruction), and there was a retreat from community-oriented planning initiatives (Brenner and Theodore, 2002a:371). The result has been intensified uneven geographical development, fragmentation of urban space and socio-spatial polarisation (Brenner, 2002, Pillay, 2004, Murray, 2008).Although much of the literature focuses on cities in the US, Britain and Europe, similar processes have occurred in cities in countries of the South (Portes and Roberts, 2005, Zunino, 2006, Murray, 2008, Pieterse, 2008). What is downplayed in much of the literature is what happens to those who are displaced by these policies, and how their struggles might alter the way that cities are produced on an ongoing basis(Murray, 2008, Crossa, 2009).

The focus on exchange relations and the links between the city-region and global exchange flows narrows the view on activity in the city, even if we only consider the economic. It emphasises particular sections of the city, spatially and geographically, privileging particular spaces ahead of others. Yet global networks and linkages only constitute a small part of the city, and not all successful economic and social development is linked into global networks(Amin and Graham, 1997, Bryan et al., 2005). At a more macro-level, despite their marginality, all cities are integrated into the global economy in one way or another. They are constituted and reproduced through their relations with other parts of their country and the world (Hansen, 1997, Shatkin, 1998). A diversity of economic activities that cross a wide range of spatial reaches, rather than the prioritisation of only those with global reach, might be a more appropriate strategy for intervention (Robinson, 2002). Further, the presumed unity of the urban economy must be questioned. A concrete analysis of the flow of goods, people and finances is required. Each of these has its own spatial form and reach, indicating constant flows that are interconnected but with their own dynamics (Bryan et al., 2005).

Reflexive self-governance and its failures

Underpinning the mainstream logic is that continued economic growth is imperative, and the best way to realise this is through increasing competitiveness and the need for revitalisation to compete more efficiently (Cammack, 2006).States are embedded in a highly uncertain geo-economic environment, characterised by monetary chaos, speculative capital flows, global location strategies by multinationals, and rapidly intensifying competition between locations. States are pressured to create conditions that enable greater competition and innovation. This encourages short-term over long-term planning (Brenner and Theodore, 2002a:367). Planning is replaced with

technocratic steering and regional crisis management (Brenner, 2002), or system maintenance rather than system transformation (Olivier and Berrisford, 2007:5). Competition does not occur between equal contestants. Capital was increasingly concentrated throughout the earlier 'regime of accumulation' to the extent that transnational corporations emerged as a major force in this time. Processes of neo-liberalisation strengthened their power. In this context, a 'competitive' environment is one that favours yet further consolidation of these large-scale interests.

States should not be understood as monolithic blocs that represent the interests of one class or another. Rather, we should comprehend states as a contradictory and disunited ensemble of overlapping relationships of power, "the result of a relationship of contradictory forces, to see it as an 'unstable equilibrium'" (Bayart, 1993:196). At the same time, the (contested) relationships of power that constitute the state are constantly renewed in discourse and through specific, everyday acts. In the same way that the wishes of the dominant 'normally' prevail in the establishment of the boundaries of legitimate action and discourse, the relations of power constituting the state are skewed towards the dominant groups in society, even if not totally. In a capitalist society, the state is skewed towards the interests of the capitalist class. Gramsci refers to the integral state, which incorporates all institutions (including those we do not traditionally consider to be part of the state) which enable dominant social groups to exercise power (McGuirk, 2004:1022). The underlying material basis and class relations in the society establish the limits and possibilities of state formation. However, contingent social struggles play an important role in this context, and contribute to shaping the discursive framing of the state and its relationship to its subjects. There is no end game, though. Restructuring of urban landscapes is an ongoing process of struggle among assorted social actors for control over the use of urban space (Murray, 2008:8).

In a capitalist society, the state is skewed towards the interests of the capitalist class.

There is nothing inherently more or less democratic about the city-region scale: it is contingent on a range of other factors. Scale is therefore best viewed as a strategy to realise certain agendas. The content of these agendas is more important than the scale (Purcell, 2007). Once again, this is an issue for concrete analysis in a given situation. Lipietz (1994:34) suggests the likelihood of three or four basic postures that emerge from the breakdown of a social formation. These are a conservative bloc (defenders of the prevailing order up until the crisis itself); a modernist bloc (advocates of change in the capitalist hegemonic system); a radical bloc (protagonists of a profound revolutionising of existing social relations); and sometimes a reactionary bloc (those favouring the return to a mythical 'golden age' prior to the crisis). Each of these blocs can be broken down further, and most, if not all, social collectives exhibit a combination of some, or all, of these. But categorisation of this sort helps to think about the trajectory of change, and the different forces that line up in favour of, or against, city-region formations of different sorts.

Pre-existing conditions inform the types of alliances and coalitions that might develop around particular efforts at rescaling. Existing social infrastructures may outlast a regime of accumulation, and form the basis for "interregional manifestations of class and factional struggle" (Harvey, 2006:419). It lays the base for alliances between the state and elements of capital that are committed to immobile investment "to protect and promote local interests and to ward off the threat of

localised, place-specific devaluation" (Harvey, 2006:420). We can acknowledge that commercial, industrial, and financial capital are not separate capitals, but rather separate forms of the same capital (Petras and Gundle, 1982:168). But capital in different stages of the commodity circuit has different requirements based on where it is in the cycle. For example, finance capital at the start of the cycle may seek to make investments that undermine the potential of capital in immobile form (infrastructure, buildings) - in the middle of the cycle - to realise returns on investments. A constant dynamic of frenzied investment in a particular location followed by stagnation and devaluation, i.e. an ongoing process of creative destruction, is an inherent feature of real estate capitalism (Harvey, 2006, Murray, 2008).

Coalitions that develop around urban regeneration and renewal of the urban form (including at a city-regional level) require state orchestration, practical acts of discursive production, and active mobilisation by a range of actors pursuing strategic-spatial interests (McGuirk, 2007:180). The act of defining the conjuncture itself "is a discursive moment of political construction" (McGuirk, 2004:1024). Given that the city-region is a political construction, we need to understand the historical features of the coalitions that develop around certain models, as well as what types of contestation around urban forms there are. There are a number of questions we can ask in a concrete situation. For example, who is empowered by the city-region scale? What is the content of the agendas empowered by this scale (Purcell, 2007)? For which interests are city-regions necessary and for which is this new territoriality merely contingent (Jonas and Ward, 2007)? What contestations and 'discursive counterclaims' (McGuirk, 2004) are there to the dominant discourse? Since coalitions are built in the context of an existing social, economic, political and cultural landscape, these questions cannot be answered *a priori*, but require concrete analysis. Answers to these will give us a sense of the political orientation of the project.

Urban governance is increasingly aimed at luring highly mobile and flexible production, financial and consumption flows into its space. This increases the instability and vulnerability of particular places (Harvey, 1989). Governance tends towards a pragmatic managerialism that converts citizens into clients through the introduction of market competition into public service delivery; decentralises service delivery; emphasises improvements in service quality; aims to reduce costs and increase efficiency; focuses on benchmarking and performance measurement; and aims for responsiveness to individual consumer needs (Olivier and Berrisford, 2007:5). In some places there is a related shift away from a primary focus on the local provision of services, facilities and benefits to urban populations (managerialism), to a focus on fostering local development and employment growth (entrepreneurialism). Since economic development and employment growth are not contained within the administrative boundaries of the city, but implicate wider economic networks, governance needs to occur at a higher scale to effectively channel these flows. Four strategies for the latter present themselves: i) exploiting particular advantages in the production of goods and services created by the international division of labour (including investment in physical and social infrastructure to create the necessary conditions to take advantage of these opportunities, or encouraging agglomeration); ii) improving competitiveness in the spatial division of consumption (for example tourism); iii) investment to acquire key command and control functions in finance, government and information/communications; and iv) redistribution of central government surpluses to build specific urban areas (Harvey, 1989:8-10).

New forms of regulation that accompanied economic restructuring include new scales of governance. The nation-state was viewed as too rigid and bureaucratic for the requirements of the new economy and the spaces of flows that had become dominant. Decentralisation of powers and functions became a multifunctional approach that at one and the same time created greater flexibility in state regulation of capitalist investment processes, responded to popular concerns about local democracy, and reduced the role of the national state in regulatory functions, including welfare and social services. In many places, decentralisation has resulted in the transfer of functions to lower levels but without the resources to carry these out effectively, and resulted in administrative fragmentation (Brenner, 2002). This was called an 'unfunded mandate' in South African parlance. So far, the crisis of the national economic and political space has not led to the emergence of another predominant scale, but rather to a proliferation of scales, related in tangled hierarchies with different temporalities and spatialities (Jessop, 1998:39-40). As much as neo-liberalism is a political project always in the making, the scalar organisation of governance is politically established and is contested and historically produced rather than a natural outcome of economic forces (McGuirk, 2004).

Closely related to decentralisation of powers to a sub-regional level was the rise of new actors in governance, including the private sector and 'community' at local levels, through the form of public-private or public-community partnerships. It was less a case of giving the private sector or communities a role on governance, as it was a formalisation and strengthening of existing roles in governance. In a globalising world, policy convergence across states was considered essential to maximise the benefits of new forms of economy and governance. In this regard, cities were considered as engines of economic growth and key actors in consolidating international competitiveness. Policy convergence around competitiveness included appropriate policy choices; systematic surveillance including benchmarking and peer review; national governments as agents responsible for making changes happen; and a role for national governments to convince the public of the importance of global competitiveness (Cammack, 2006:2-3). There is a strong emphasis on partnerships and networks rather than top-down national government, in particular public-private partnerships in the context of the market as the key mechanism for the most efficient distribution of resources (Jessop, 2002:465-6).Decentralisation and the growth of public-private partnerships were part of broader processes of creative destruction at a local level that included privatisation of the municipal public sector and collective infrastructures, restructuring of urban housing markets and reworking labour market regulation (Brenner and Theodore, 2002a:370).

In a globalising world, policy convergence across states was considered essential to maximise the benefits of new forms of economy and governance

The perceived need for new forms of governance and the widening of the pool of 'stakeholders' was related to the failures both of marketforms of regulation and hierarchical, state-led forms of regulation. The alternative was what the Germans called 'de-centred context-mediated inter-systemic steering', or what Jessop (1998) in only slightly less taxing terms calls heterarchic, or reflexive self-organisation. Heterarchic governance offers advantages over anarchic (market) or hierarchic (state) forms of governance in innovation and learning in changing circumstances. It involves forms of interpersonal and inter-organisational networking and reduction of mutual incomprehension between partners. Conditions for competitiveness in

the 'unstructured complexity' of the global economy require an additional capacity to derive value from extra-economic institutions and relations. Institutions are placed at the centre of stimulating economic growth with an emphasis on 'untraded interdependencies' and soft infrastructure, which links the city-region to the knowledge economy (Makoni et al., 2008:298). Heterarchic governance is better suited to this task than the other forms (Storper, 1995, Jessop, 1998:33). Under heterarchic governance, individual actors give up some of their independence in decision-making in exchange for a greater say in the decision-making of their partners. So corporations gain political influence at the expense of some control over economic decisions, and governments gain some control over economic decision-making at the expense of some political authority (Jessop, 1998:35-36).

This seems to be attractive, since it means greater co-ordination and understanding between partners. However, the practice has not developed as well as the theory might suggest. First, what is generally understood as market failure is actually a product of the contradictions inherent in capitalism itself. Second, heterarchy does not automatically fit with existing political structures. Third, self-organisation is open to failure on many fronts, not least the need for some form of meta-governance to manage the results of many devolved decisions (Jessop, 1998:40-41).Another key problem with this form of governance is that many important constituencies (for example the urban poor) are not well organised and are therefore unable to participate directly in governance processes. Others wield immense power and can influence the trajectory merely by acting, even if they do so on their own. Because of this complexity, those who are not organised usually get left out of the process, at best being represented indirectly or by proxy. The empowerment of the 'community' in governance processes is bound into the relinquishing by the state of core functions that it previously took responsibility for, and the devolution of these into localised, deregulated sites in the context of immersion in globalised economic relations (Martin and Ritchie, 1999:369, Brenner and Theodore, 2002a).

Social reproduction

The continued growth of urban areas and city-regions has had contradictory effects. It has resulted in the growth of migration and the associated cultural heterogeneity. This does not fit neatly into the old city boundaries, and gives rise to 'polycentric agglomerations' which blur the boundaries between urban, suburban, peri-urban and rural, as well as between cities that were once clearly distinct from one another. Cities provide concentrated services and access to economic opportunities. At the same time, heterogeneity is often fragmented in space, and is accompanied by increased inequality. Social dislocation, overcrowding, violence and poor living conditions characterise city life for many residents.

The location of housing and efficient transportation systems also take on a regional character as the boundaries of economic activity flows across existing administrative boundaries. Housing and transportation are critical for efficient economic planning, but they are equally important from a social point of view. While formal housing is generally well-serviced, there is a massive growth of informal housing where standards are very low. Key issues are access to water and sanitation, structural quality of housing, overcrowding, and security of tenure. On the basis of these, it is

estimated that almost 72% of the sub-Saharan urban population lives in slum conditions (Hall, 2007:5). The location of informal settlements in relation to markets is also a key issue, since they are mostly on the margins of economic activity. Public transportation is fragmented and does not serve the urban poor.

The management and governance of the social aspects of city life is wide-ranging. Social reproduction is essential for the economy. The rise of entrepreneurial governance has meant that social policy is mainly subordinated to economic policy. That is, economic imperatives (growth and expansion, creating the conditions for investment) dominate decisions about social policy. The economic approach tends to focus on competitive city-regionalism, shifting the explanatory emphasis towards treating city-regions as sites of exchange, innovation, development and competition, and away from issues of redistribution, conflict, counter-strategies and politics (Ward and Jonas, 2004:2121). The emphasis on the functionality of cities in global flows of capital and trade reduces them, "with all their institutional, political, cultural, and social complexity, to nodal points in a spatial cost surface that extends on a global scale" (Keil, 1998:630, Ward and Jonas, 2004:2124).

Public transportation is fragmented and does not serve the urban poor.

From an economic point of view, social reproduction is a critical factor in sustaining urban economies (Krueger and Savage, 2007:215). 'Human resources' and social infrastructure are essential to the flows of capitalist power, indeed they are the source of value addition in the circulation of capital. Without them there would be no flows. But not all of those who arrive in the city are functional to the systems of production, consumption and accumulation. Sometimes they have inappropriate or obsolete skills. At the same time, a reserve pool of labour is required for times of expansion, and these people must be secured and ready to participate as and when needed. This becomes a significant overhead cost which is nonetheless essential for capitalist growth. So alongside 'capital fixed in the land', there is also a 'human resource complex' that grows up around particular accumulation strategies. These are neither totally free of the material base and nor are they completely tied to it. Rather, the social infrastructure is a dialectical product of the interaction between pre-existing, differentiated social infrastructures, and the needs of a particular strategy of accumulation (Harvey, 2006:398-400).

The emphasis on a 'knowledge economy' places even more stress on the social aspects of city governance, since a new 'human infrastructure' of knowledge workers is required (Sokol, 2004:6). In order to attract and retain the right skills, cities must be liveable for this class of people. Location and aesthetics are bound up with this quest (Jarvis, 2007:209). Although there are claims that this necessitates greater social equity, there is no automatic connection between the growth of the knowledge economy and greater equity. Indeed, the logic often strengthens those with resources and skills at the expense of those without, with greater competition between ever more wealthy centres, and an increasingly marginalised periphery (like Premier league football with only a few teams competing intensively between themselves). Asking the question from whose point of view 'liveability' is considered redirects attention from ideas of urban competitiveness to conceptions of social well-being and environmental stewardship (Jarvis, 2007:208).

Social reproduction needs to be managed in the most efficient way to reduce costs as far as possible, while ensuring labour markets are functioning in accordance with the needs of the day. However,

the people who constitute the 'human resource' are not limited to the economic dimension. They make demands and insist on inclusion in decision-making processes about the city that transcend their role as units of labour. This struggle between competing interests is no less than constitutive of forms of governance, accumulation strategies, and the relationship between the social and the economic.

Contestation is the basis of defining local state forms. The literature on urban governance and city-region formation tends to understate the role of class interests, political alliance formation, and conflicts around the management of collective consumption and social reproduction. Instead of seeing the city-region as some kind of ideal form, they will be better understood on the basis of actually existing struggles and strategies developed around particular forms of investment and consumption as the basis for subnational state geographies (Ward and Jonas, 2004).

The implementation of neo-liberalism has had to contend, not only with its internal incoherence, but also with contestation around its vision and its practical impacts. Its agenda is strongly based on individualism and economic rationality. The practical application of this has been very destructive to the public sector, social collectivity and extra-economic relations of nurturing and care. Yet the restructured spaces that have been created in practice do produce new arenas for contestation. For example, decentralisation and the revival of the notion of civil society are locked within a rationalist and narrow framework, while simultaneously creating the grounds for the potential for local democratisation and the legitimisation of popular struggle.

Yet the restructured spaces that have been created in practice do produce new arenas for contestation.

From a social point of view, neo-liberal urban restructuring has focused on 'taming the disorderly city' to cite the title of Martin Murray's recent book (2008). This has involved re-regulation of urban civil society through zero-tolerance crime policies, surveillance and other forms of social control and combating social exclusion by reinserting individuals into the labour market (Brenner and Theodore, 2002a:372). But at the same time, policies stressing efficiency of service delivery, improvement of transport systems, housing and so on, open room for contestation. It is possible that metro-regionalism could develop that aims to respond to socioeconomic problems caused by uneven development and polarisation (Brenner, 2002). Urban entrepreneurialism could be transformed into an urban corporatism that can be the vehicle for a progressive coalition of forces that can challenge the hegemonic dynamism of capitalist accumulation (Harvey, 1989).

These possibilities are heavily dependent on resistance and oppositional mobilisation. Despite the dominance of neo-liberal agendas in most, if not all major cities, they remain vibrant socio-political arenas where alternative practices and experiments flourish (Brenner and Theodore, 2002b:346). The local state has "perforations at its interface" with civil society, and is open to contestation, with possibilities as an alternative political space and organisation (Keil, 1998:617). At the same time, 'insurgent' civil society at times goes beyond its interactions with the state, to create a democratic conception of civil society from below that differs from the type of civil society dominant powers would prefer to interact with (Keil, 1998:629). On the basis of resistance, groups who are targeted for displacement or removal by strategies of entrepreneurial governance have managed to negotiate, resist and even subvert exclusionary practices, retaining socio-economic niches for themselves in the city despite these attempts (Crossa, 2009).

In essence, the city-region is a scale of governance within a global system of capital accumulation, based on settlements that have been shaped by uneven capitalist development. However, this space is contested and contestable, and there is room to seek transformation of social and economic structures in favour of the poor, but only on condition that the urban poor mobilise themselves and act to defend and assert their interests. It is just as abstract to argue that the city-region can be a space for transformation without providing concrete evidence and instances of this, as it is to argue that city-regions are purely neo-liberal everywhere and at all times. Contradictions abound, and it is these we should be looking for, locating the contradictions that might enable the progressive tendencies in the state and amongst social and political actors to insert transformative content and actions into the uneven and unequal spaces of the city-region in formation.

Environmental crisis and ecological modernisation

Even more profoundly than economic and social flows, the environmental impacts of human settlement and economic activity overflow administrative boundaries. This has occurred for along time but is only being taken seriously now that it has started posing a real threat to continued economic growth. Capitalism as a system continually generates environmental crises on both the input (resource) and output (pollution) sides (Keil and Desfor, 2003:27-33). These include encroachment onto rural land, water and air pollution, and generally the increasing absorption of ever greater amounts of natural resources (ecosystem effects). The environmental footprint of cities has been an issue for some time. In Europe and the US, efforts started from the 1970s to respond to the growing environmental damage cities were making. In the early years, solutions were sought in town and regional planning to improve environmental conditions. Later, the concept of sustainable development allowed for a bridge between 'overdeveloped' areas and 'underdeveloped' areas, both internally and globally. With the emergence of climate change as an issue, renewed focus was placed on long-term political issues of sustainability (Goedman et al., 2008:2-3). Sustainable development is poorly defined and tends to have a comparative function: one path is more or less sustainable than another, but whether this leads to real sustainability, or is merely 'less worse', is not part of the debate (Goedman et al., 2008:4).

The mainstream response to growing ecological crises in the city has been one of 'ecological modernisation'. Demands for maintaining and improving environmental integrity and coherence have lost ground to concerns for efficiency, competitiveness, marketability, flexibility and development (Keil and Desfor, 2003, see Goedman et al., 2008:1 for the downgrading of environmental issues from the spatial agenda in the Randstad). Environmentalism is incorporated into economic decision-making in such a way that the notion that there can be 'endless growth' is not challenged (Jarvis, 2007:209). However, rather than merely focusing on growth for its own sake, it might be more important to consider what kind of growth, for whom, and with what implications (Bulkeley, 2007:20).

There is scientific consensus that the production of greenhouse gases (GHGs) leads to a warming of the atmosphere. If current levels of GHG emissions are not reduced by 90% globally by 2030, temperatures are likely to rise on average 2°C. Once this happens, a sequence of events unfold which leads to the heightened possibility of 'thermohaline circulation' - the circulation of cold and warm water currents which regulates global temperatures - either weakening or stopping altogether. This could result in a fast, massive and permanent change in climate conditions. The

last time the circulation stopped, 90% of life on earth was wiped out (Monbiot, 2007:1-19). Cities cover 2% of earth's land area, but contribute 75-80% of GHG emissions. In this sense, even if the percentage is somewhat lower (Dodman and Satterthwaite, 2009), they are a big part of the problem of climate change. Key focal areas that require action to reduce emissions are energy consumption, transport, planning and waste production and management (Bulkeley, 2007:10). Seventy-five percent of global energy consumption occurs in cities and roughly half of this comes from burning fossil fuels in cities for urban transport (Tibaijuka, 2009:4).Cars emit around seven times the CO2/passenger than trains, and 8.5 times that of buses. This suggests that buses are ideal for commuters within a city or region, and trains would best be used for goods transport, replacing trucks, which are also large emitters of CO2. There are ways of making buses more efficient than cars in moving around the city, including giving them right of way at intersections, instituting toll roads for cars in the city, and developing an integrated inter-modal transport system (Monbiot, 2007:142-169). It is imperative that air travel is significantly reduced, even though this is at odds with the notion of a globally competitive city. Air travel is the most damaging form of transport of all, at almost double the emissions of cars for a short-haul flight (Monbiot, 2007:180).

Buildings use up to 40% of energy and emit about 30% of GHGs during their life cycle (El Sioufi, 2009:20). The use of cement in production is extremely carbon intensive. The manufacture of a ton of cement releases, on average, 814kg of CO2 (Monbiot, 2007:198). Housing can become more environmentally friendly and reduce GHG emissions through urban environmental planning and urban design, especially compact cities which reduce reliance on transport; architectural design and construction (including the use of local materials and reduction in the use of concrete); and improved building use and management (El Sioufi, 2009:20). There are many ways of reducing energy consumption and waste in houses by improving building design and adhering to quality standards. These include constructing all new houses with effective insulation; automatic ventilation systems; a shift from incandescent to compact fluorescent lightbulbs; solar water heaters to replace geysers; and retrofitting existing houses with better insulation (Monbiot, 2007:59-78).

To date, a key site for action on climate change has been at the municipal level. Most initiatives - such as retrofitting buildings, reducing energy use and switching energy providers - have tended to fit with neo-liberal conceptions of efficient government (Bulkeley, 2007:11), with the result that municipal governance of climate change reproduces present forms of urban governance. The focus is on the potential economic benefits of dealing with climate change. However, once this argument can no longer be sustained and moves into requirements for reduction of demand for transport and energy, addressing climate change locally becomes more contested (Bulkeley, 2007:14). The privatisation of socio-technical systems of energy, transport, waste and water fragments the response to climate change and makes it more difficult (Bulkeley, 2007:15).In this context, local governments are required to develop new capacities: to create financial incentives for action; to persuade others of the need for action; and to co-ordinate action across different arenas and sectors in order to generate new governing capacities (Bulkeley, 2007:16).

Part II: The Gauteng City-Region

The Gauteng city-region in theory and practice

Background to the idea

Integration of planning and implementation is a challenging task. Dozens of documents, at varying spatial scales and with varying statutory weight, deal directly with integration of economic, social and (to a lesser extent) environmental planning in cities in South Africa. Integrated Development Plans (IDPs) have been the primary tool for local government integration of activities in their territorial areas of jurisdiction since the introduction of wall-to-wall local government in the mid-1990s. In the territorial area of the GCR, there are three metros and six district municipalities, each with a number of local municipalities. Integration of IDPs is extremely difficult given that local processes identify local priorities. In developing an integrated approach to the GCR, government has focused on key points of integration, starting with transportation and to some extent human settlement, at least at the level of a planning framework. More recently, Provincial Growth and Development Strategies (PGDSs) were required in each province in the country. These had to somehow articulate with the IDPs, both drawing from local priorities and imposing a provincial-level strategic plan on top of them. To complicate matters further, the National Spatial Development Perspective (NSDP), driven from the Presidency, required the integration of spatial plans into IDPs and the production of provincial Spatial Development Frameworks (SDFs). To ensure local involvement, SDFs were also developed at the local municipal level, and in the metros at a sub-metro regional level. The IDPs are meant to inform the budgeting and planning processes of functional departments that operate at a national or provincial level, such as education, health, housing, and transport. The co-ordination and integration of these overlapping but separate frameworks and planning processes is an extremely onerous task. This results in at least four levels of planning and implementation authority: local/sub-metro; district/metro; provincial and national.

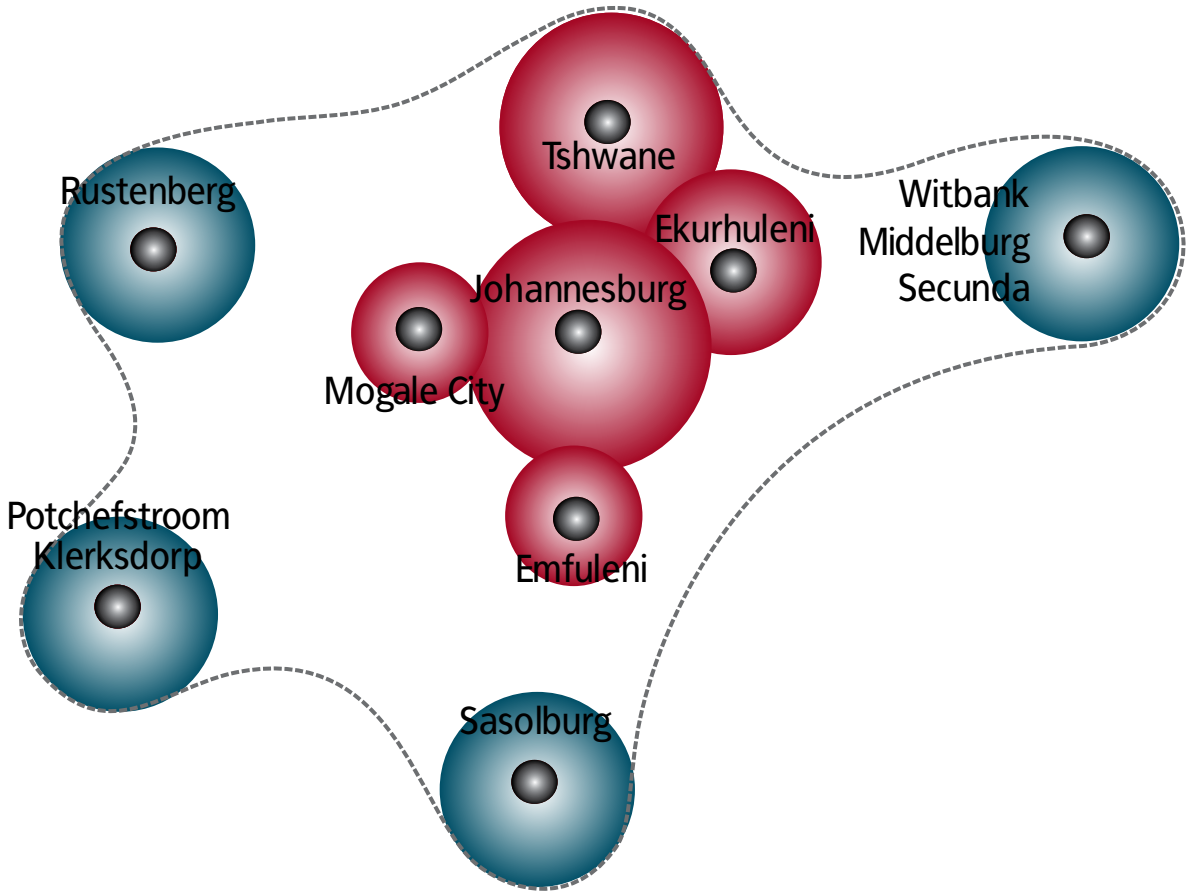
The GCR aims to insert another level of co-ordination that hovers between metro/district and provincial. The logic, as we have seen, is that economic activity, the movement and settlement of people, and the ecological impacts of these, cannot be managed effectively in a framework of rigid administrative boundaries. Flexible governance is required that permits the crossing of administrative boundaries while retaining authority. Key challenges are identified as infrastructure under strain; social issues (population, in-migration, long-term unemployment, skills mismatch) and environmental pressures (air and water pollution, land use, inappropriate transportation); growing new economic sectors; municipal capacity; and strengthening intergovernmental relations (Gauteng Provincial Government, 2006).

The 'footprint' of the city-region is mainly within the provincial boundaries of Gauteng. The city-region is sometimes conceptualised broadly as incorporating smaller centres in Gauteng and beyond (Mogale City, Sedibeng, Rustenburg, Potchefstroom/Klerksdorp, Witbank/Middelburg/

Secunda), and sometimes more narrowly as the three metros (see Figure 1 below). Considerations of how to proceed with the city-region (of which more below) suggest the possibility of starting with the three metros and building outwards to cover other areas over time. An overview of GCR presentations and documentation published between 2005 and 2006 all follow a sequential logic in introducing the GCR concept that starts off by:

- Placing emphasis on growing the (urban) economy as a pragmatic precondition for development;
- Recognising that the global spatial location of economic growth increasingly focuses on cities and their immediate surrounding regions;
- Observing a new international hierarchy of urban regions in a competing for economic growth within which the existence of a globally competitive city-region is an important precondition for growth and development; and
- Motivating that the Gauteng urban region meets the preconditions and characteristics of becoming a globally competitive city-region (Olivier and Berrisford, 2007:14).

Figure 1: Expanded view of the GCR



Source: (CUBES, 2007a:2)

In South Africa the literature on global city-regions is narrow and tends to be 'boosterist' in character, i.e. it tends to uncritically support the notion that a global city-region in Gauteng (or around Cape Town) will advance the interests of all citizens in the urban region. The local debate skates over the deeper questions of locating the city-region concept in a highly unequal socio-economic system, and moves rapidly to the practical aspects of realising the city-region. It reflects planning as an 'apolitical', technocratic exercise.

The argument in favour of adopting a competitive city-region approach in Gauteng is based on two assertions. The first is that existing inter-governmental structures (national, provincial and local) are not adequate, on their own, to manage new economic, social and ecological dynamics. As the region grows and densifies, "it will become more and more difficult to administer the local government affairs of…residents [of individual municipalities], without considering the functional overlaps and interconnections with other municipalities in respect of spatial planning and housing location, transport systems, service infrastructure, economic development, environmental management, and so on" (City of Johannesburg, 2006a:45). The second argument is that governance needs to broaden its base to more formally incorporate other key decision-makers, in particular the private sector, with its economic decision-making power.

The sections below interrogate the necessity of a city-regional level and form of governance on the basis of economic, social, ecological and governance considerations. The first three of these are at the base of the mainstream 'sustainable development' approach, which seeks to balance 'profits, people and planet'. National, provincial and local governments alike subscribe to this approach, with ample evidence provided in policy and planning documents. The fourth section considers to what extent the city-region approach brings us closer to realising important principles of governance itself: deepening of democracy and increased popular participation in decision-making. For now, these are assumed to be part of government's objectives in governance. That assumption will be tested through analysis of core city-region, planning and strategy documents.

Economic logic

Governance of a complex city-region requires a balance between economic, social and ecological demands. These demands often compete with one another, including around how space is used. In essence, the spatial logic of the GCR is to maintain an urban boundary which allows for conservation of natural resources. This in turn requires intensive rather than extensive development, so a compact urban form with densification and infill of the urban core is the preferred route for development. Within this space, nodes for intensive economic development are identified. These are linked by corridors that are also targeted for economic development. Human settlement and transportation infrastructure is guided by the location of the economic nodes.

Underpinning this model are a number of key assumptions, the most important of which are: neo-liberal globalisation is a fact and South Africa is forced to integrate into it, and should try to do so on terms as favourable as possible to the country; this requires an emphasis on becoming/remaining globally competitive in order to attract flows of capital and information; a new, dematerialised

'knowledge economy' is becoming more important than the old industrial economy; economic growth is a non-negotiable imperative in order to remain competitive and to reduce poverty; the South African economy is bifurcated, with a relatively strong but exclusive formal economy, and a large but disconnected informal economy; and a key task for government is to build structural connections between the two economies to enable those in the informal economy to gain access to the formal economy.

The objective of the GCR strategy is "to build Gauteng as an integrated and globally competitive region, where the economic activities of different parts of the province complement each other in consolidating Gauteng as an economic hub of Africa and an internationally recognised global city-region" (Gauteng Provincial Government, 2006:16). It is necessary, according to the strategy, to "embrace the reality that [the city-region] will need to compete with other regions in the world economy" (Gauteng Provincial Government, 2006:7). There is a strong conceptual link between the 'globally competitive city' and the Growth, Employment and Redistribution (GEAR) programme's focus on foreign direct investment (FDI) as a driver of economic growth in South Africa. This can be realised by enhancing comparative and competitive advantages, with the state playing an important role especially in building the 'hard economic infrastructure' that can attract investment and skills. A competitive region is one that is able to engender economic growth, which in turn will result in poverty reduction (Gauteng Provincial Government, 2006:16).

A key challenge identified in the GCR strategy is the need to grow new economic sectors, in particular the knowledge-based activities of the 'new economy' (Gauteng Provincial Government, 2006:26). A consultant's report for the province makes the point that the knowledge economy is not based on a few high technology industries, but is also about the application of knowledge in traditional industries, such as mining, agriculture and manufacturing. To focus on the knowledge economy means "producing, distributing and using knowledge as the main driver of growth, wealth creation and employment across all industries" (KPMG Services (Pty) Ltd, 2009:57-58). ICT and pharmaceuticals were identified in the provincial GDS as targeted sectors.

This does suggest a clustering of knowledge intensive sectors of the economy.

Gauteng makes a particularly large contribution to the economic categories of 'innovation and experimentation' (63.5% of national GVA[1] in 2004), 'high-value differentiated goods' (52.6% of GVA), services and retail (49.4% of GVA) and tourism (47.1% of GVA) (Gauteng Provincial Government Department of Economic Development, 2007:11). This does suggest a clustering of knowledge intensive sectors of the economy. Mapping of the top ten contributors to GVA show a clustering of ten geographical concentrations which are spread across the three metros (plus a clustering at Vereeniging/Vanderbijlpark) (2007:28). This is probably the strongest argument in favour of adopting a city-regional approach, since it indicates that economic development is fragmented across the province and co-ordination mechanisms have to transcend municipal boundaries to be effective.

[1] Gross Value Added measures the contribution to the economy of each industry or sector. GVA=GDP taxes+subsidies.

Blue IQ was established in 2003 to drive strategic investment in the knowledge economy. It aims to 'crowd-in' private sector investment by kick-starting investments in strategic industries which for one reason or another have not been targets of private sector investment. Currently Blue IQ has investments in business tourism, high value-added manufacturing (especially automotive), logistics, and ICT (Blue IQ, 2008:1-2). Blue IQ investment is spread throughout the province, mostly within the core of the city-region but with a few outside the core of the city-region identified as points of tourism potential (e.g. Dinokeng and Cradle of Humankind). The Gauteng Innovation Strategy focuses on supporting innovation in services, manufacturing, mining and resources, the informal sector and social innovation (Gauteng Provincial Government, 2008:7). By social innovation, the strategy is referring to the application of knowledge to find creative solutions to issues of social development. Although there is a heavy emphasis on science and technology, the strategy does at least attempt to spread the benefits beyond a narrow economic approach, applying innovation to social issues as well. The 'triple helix' of government, industry and universities, a successful institutional constructed to drive innovation strategies in other parts of the world, is expanded to include the non-governmental development sector. This adds a new dimension to economic and social innovation possibilities (2008:18). The draft version also seeks to widen the scope beyond the core city-region, to consider innovation potential in the province as a whole, based on geographically-located competencies such as tourism, agriculture and mining (2008:19).

At a metro level, Ekurhuleni's vision is to be "*the* smart, creative and developmental city" (emphasis is in the document). However, the concept of a smart city is not developed, and the only main reference to it in the IDP and GDS relates to the development of ICT infrastructure (Ekurhuleni Metropolitan Municipality, 2008:14). The GDS also refers in passing to an increase in smart industries as part of its economic diversification plans. Tshwane GDS aims to enable (rather than direct) long-term investments in science, technology and innovation through increasing expenditure on research and development, improving the quality and number of learners with science and technology, and efforts to retain and build skilled workers in the knowledge economy. Key sectors identified by the metro include ICT, electronics, biotechnology, advanced materials and manufacturing, aerospace and knowledge-intensive service industries (City of Tshwane, 2006b:19).

Global competitiveness, the embracing of the knowledge economy and innovation are all underpinned by an explicit understanding in all strategies and plans that economic growth is an absolute imperative for poverty reduction and social improvement. The National Spatial Development Perspective (NSDP) is the source of the economic and spatial strategies deployed in the province and the GCR. A core principle of the NSDP is economic growth as a pre-requisite. The provincial SDP adopts this principle, saying "economic growth is a prerequisite for the achievement of other policy objectives, and specifically job creation and poverty alleviation" (Gauteng Provincial Government Department of Economic Development, 2007:60). This statement clearly prioritises the economic, and sees the realisation of social objectives as happening through economic growth.

The Joburg 2030 strategy (City of Johannesburg, 2002) was launched at the tail-end of some fundamentalist neo-liberal thinking in South Africa's government, and the orientation of that document reflects it. It, too, is centred on the idea that economic growth and greater profits will inevitably lead to improved conditions and incomes for citizens. Economic growth itself is strongly reliant "on external demand from foreign countries"(2002:26). The logic of the vision is that government must create enabling conditions for private sector investment, which will lead to a virtuous circle of growth, employment and improved living conditions for all. There is some tension between the Joburg 2030 strategy and the city's GDS, which recognised some of the analytical exclusions of the earlier strategy, and suggested a strategic rethink (City of Johannesburg, 2006a:5-7). The GDS accepts the core logic of the Joburg 2030 vision - that economic growth is imperative for the reduction in poverty - but highlights some important additional areas that were not included, such as housing and environment and recognition of the role of the informal economy and the importance of integrating it into economic strategies. The city's Human Development Strategy highlights the need for immediate interventions to deal with poverty rather than waiting for growth to trickle down (City of Johannesburg, 2004).

It is worth noting that one of the critiques of the Joburg 2030 strategy in the GDS was that it discounted the strength of local demand as a potential target for economic activity. It says: "Since February 2002 South Africa has seen a domestic consumption-driven boom. This new trend implies the need to re-evaluate some of Joburg 2030's foundational assumptions" (City of Johannesburg, 2006a:5). This is positive in the sense that it recognises that there is more to the economy than merely serving the 'global market'. However, it underlines the short-term thinking of planners and strategists. A strategy cannot be based purely on the current direction of the economy. For example, it would not make much sense to alter the strategy once again now that there is a recession. Tactics can be altered, but the strategy itself is supposed to be a long-term plan that builds a solid base for the economy regardless of temporary trends in the economy. On the other hand, this may merely have been a readily available justification for the call for a general reorientation in the strategy away from Johannesburg towards a more nuanced and integrated consideration of economic pathways, which is a positive policy shift. Nevertheless, the Joburg 2030 strategy was in existence for long enough to shape programmes and interventions that have had a material effect on the growth and investment pattern of the city - and by extension the city-region, since Johannesburg manages the largest portion of the economy in the region.

The objectives of the city-region are therefore defined as building and maintaining a globally competitive economy within the context of a knowledge economy, with economic growth which will lead to social improvement. These objectives are then situated in an understanding of the South African economy as consisting of two separate economies, an advanced, increasingly globally integrated 'first' economy and an informal, marginalised 'second' economy, with a structural disconnection between the two (Mbeki, 2003). The economic agenda is to "increase investments and support to sustain and accelerate growth of the first economy, and ensure that the second economy is integrated into the mainstream economy and the benefits of growth are shared" (Gauteng Provincial Government, 2005:19). For the informal economy, this means focusing investment on the linking mechanisms rather than the activities of the economy itself.

The logic of the 'two economies' thesis is inseparable from the spatial development perspectives and the GCR strategy itself.

A fundamental critique of this entire economic approach starts from the failure to question the dynamics of the capitalist system, seeking only to balance economic and social (and to a lesser, and more instrumentalist extent, ecological) sustainability within that context. The basic assumption is that capitalist economic growth can occur in a socially and ecologically sustainable way. Yet rising social inequality and marginalisation, increasing economic concentration, and growing ecological crisis are inevitable consequences of that system. Without responding to the creative destruction that constantly destroys existing investment to create profitable new ones, sustainable development will remain a crisis management response in the face of ever-deeper contradictions and ever more extreme short-term solutions. The existence of informal settlements without services in the south of Gauteng is a direct product of the evolution of investment decisions in the centre and north of the province. The agglomeration of economic activity in a concentrated space is inseparable from increasing natural resource shortages and their degradation, the pollution of air, water and land, and the negative impacts of these on people.

The logic behind supporting particular industries (e.g. high-tech, biotech) is primarily to remain globally competitive. While finance and business contributed 26% to the Gross Geographic Product (GGP) of Gauteng in 2001, it only contributed 14% to employment (Gauteng Provincial Government, 2004:19). It therefore has high productivity, but is not a labour intensive strategy, nor one which necessarily benefits the majority of the population in the services it produces. The logic of capitalist development and growth is the driving force behind the selection of the 'strategic' sectors to concentrate investment in. It is not the social needs of the population that drives investment decisions, except in the indirect, trickle-down path via growth and profit.

But it is not only globally that the city-region competes. It also competes nationally for investment.

The city-region concept is theoretically based on a reduction of competition and a rise in co-operation to co-ordinate economic activities in the region. But this comes at the expense of increasing external competition. The Gauteng city-region has to compete against its bigger, better-resourced counterparts elsewhere in the world, and this requires a strong focus on an enabling environment for global businesses to flourish. The logical outcome of this was spelled out in the conceptual section in Part I of this paper. This includes a 'race to the bottom', where city-regions out-compete one another to reduce regulation and increase freedom - for corporations. This more often than not has a negative impact on residents, who are exposed to less-regulated markets in labour, services and products. But it is not only globally that the city-region competes. It also competes nationally for investment. Thus, the Gauteng GDS states that connections with the local economy should be built to promote "inward investment and export penetration where possible" (City of Johannesburg, 2006a:89). But in this context it has the economic advantage, and is able to reinforce its centrality to the national economy at the expense of less-developed areas, like the peripheral rural provinces. Its strategy (and imperative) is to suck in investments that, in a more balanced economic plan developed at national level, might be more evenly distributed across the country. But, as we have seen, the NSDP supports precisely this kind of concentration of the economy. In a competition

between Gauteng and other provinces to attract investment, Gauteng is likely to win most of the time. Yet the GCR is conceptually and strategically isolated from the rest of the economy, except insofar as the latter can direct yet more resources towards it.

The focus on FDI and global orientation underplays the potential importance of domestic demand and the significant economic activities that are not directly linked into global flows, and that don't need to be connected into these flows to be successful and provide goods and services that people want and need. The danger is that the focus on global competitiveness will marginalise these activities and bypass the potential inherent in them to be supported and grow and exist in their own right, not as some secondary aspect to the globally networked economic activities. This applies to the knowledge economy too, identified primarily with its core sectors in high value-added manufacturing, finance and information. These sectors only form part of the total economy in Gauteng. They are embedded in the local economy and are not purely outwardly oriented. They also occupy only a very small part of the city, both geographically and in terms of everyday practice.

The logic of economic growth underpins policy in the post-apartheid period. Various strategies were followed to realise this goal and it was very successful from the mid-1990s until the current recession. Yet the benefits of this economic growth have not been evenly distributed in the society. Unemployment and inequality have both grown. Figures vary, but some authoritative statistics show that between 1996 and 2006 unemployment (on the narrow definition) has grown from around 20% to 25.5% (Standing et al., 1996, Statistics South Africa, 2008). Over the same period, the Gini increased from 0.60 to 0.64 (Triegaardt, 2008)5. The strategy of focusing even more on the already concentrated economic core is unlikely to change this outcome. First, the very notion of spatial planning implies some kind of territorial hierarchy, even if this is not very neat. The NSDP strategy is based on aggregate output which, by its very definition, will skew the results in favour of the industrial core. This model fails to capture micro-level activities that do not make it onto the radar at a macro-level, but which hold the potential for real economic diversification from the ground up, that more closely serves the needs of the population. The model is designed for big business in monopolistic mode.

The private sector bases its own speculative investments on short-term profitability.

Public sector spending on hard infrastructure can direct private sector investments to an extent. However, efforts by the public sector to 'crowd in' private sector investment in strategic sectors and locations remains a speculative affair. The private sector bases its own speculative investments on short-term profitability. Public sector investment may tip the balance in favour of investing in those selected parts of the economy or locations, but this is not automatic. In some instances, private sector investment has followed the strategic lead of the state. For example, total investments by City of Johannesburg (CoJ)/Johannesburg Development Agency (JDA) on their priority projects between 2001 and 2008 were less than 3% of total investment in the same projects (Johannesburg Development Agency, 2009:7). But in many other cases, private investment has its own logic. For example, the proposed Cradle City development to the north-west of Johannesburg lies at the heart of the city-region, with an air link through Lanseria. But the design of the development is such that it may become a private city, self-contained and separated from the city-region (Fife,

2009).The growth of 'edge cities' as self-contained areas, such as Sandton and Rosebank, may further the goal on densification and infill, but this comes at a social cost of locking wealth into small enclaves in the city, and lead to a further concentration of economic activity and wealth (Crankshaw, 2008). Economic growth might be realised, but this is not shared and inclusive.

With regard to the city-region as a functional unit for organising the economy, there is a functional core, which is a historical construction based on apartheid-capitalist investment patterns. There are some arguments for why it makes sense to conceptualise the economy as a city-region and develop approaches based on that framework, though not all of these are so clear cut. For example, while the international trend for economic agents to cluster together in agglomerations does exist in South Africa, evidence is thin that these areas function as *distinct* territorial platforms from which concentrated groups or networks of firms contest global markets (Pillay, 2004:352). Basing interventions on the city-region concept will result in a reinforcement of the core-periphery model. That is the explicit logic of the NSDP and the provincial and municipal plans based on that framework. Others argue that the GSDP is less about articulating a spatial interventionist agenda and more about a framework for improving the management of spatial dynamics. For example, Blue IQ and housing development have not been based on a clear spatial agenda, and post-1994 investments have cemented the apartheid spatial development pattern (Olivier and Berrisford, 2007:11).

Social aspects

In-migration, population increase and structural unemployment have led to the deepening of urban poverty. This, coupled with increased social and wealth polarisation, is recognised as a core concern in the GCR strategy (Gauteng Provincial Government, 2006:25). The Gauteng SDP provides a detailed analysis of the spatial dimensions of poverty in relation to economic activity, and finds that there is a spatial separation of the two except in five locations, with Soweto being the largest area of overlap (Gauteng Provincial Government Department of Economic Development, 2007:37).

As the section above showed, economic growth is identified as the primary means through which poverty will be overcome. The NSDP (and by extension the Gauteng SDP) goes a step further to say that investment should focus on people, not spaces. In essence, it is saying that people are mobile and spaces are not. People can be moved to realise economic growth objectives. This is deemed acceptable because economic growth will translate into jobs and a reduction in poverty. In line with this, on an implementation level, economic growth is taken as the key driver for social investment decisions, including skills development and the location of transport infrastructure and housing. The governance model, in turn, favours PPPs, and the delivery of social services is incorporated into this model.

The core of the social strategy is to reduce poverty by creating access to, and opportunities in, the formal economy. Two obstacles stand in the way of achieving this, according to the GCR strategy. First, the poor are spatially separated from economic activity. Second, the poor do not have the appropriate skills to participate in an increasingly knowledge intensive economy. The solutions presented in the strategy (and drawing heavily from the NSDP) are: i) to bring the poor physically

closer to economic opportunity primarily through improving the location of new housing and building a transport infrastructure that enables greater accessibility to economic hubs; and ii) to upgrade the skills of the poor so they are equipped to participate in the job market. These are important, as far as they go. People do need access to employment and economic opportunity, and they do need opportunities for furthering their skills and education. But how does this strategic approach play itself out in reality?

Transportation and housing

Transportation and human settlement are key drivers of the urban form and city-region formation. They are critical both to economic development as well as social development. For this reason, they can be used as examples of the relationship between economic and social imperatives in the framing of the GCR. The critical role of housing and transport infrastructure in shaping and supporting a compact urban form, based on densification, infill, nodes and corridors and a hard urban edge, was indicated above.

From the point of view of transportation, this is a national imperative, written into the National Land Transport Transition Act 22 of 2000. The Act also requires municipalities to develop Integrated Transport Plans (ITPs), and provinces to develop Land Transport Frameworks (Khuthele Projects (Pty) Ltd, 2006:7-8). It also calls for an emphasis on public transport and a demotion of private transport. Transportation is a shared competency, with national, provincial and local municipalities each having some responsibilities for infrastructure and regulation (Khuthele Projects (Pty) Ltd, 2006:4). In 2002, revisions to the Provincial Transportation Act were passed which allowed for the establishment of political and technical co-ordination structures for the integration and co-ordination of the transport system across the province. A province-wide intergovernmental charter was agreed between municipalities and province to realise shared transport objectives and outputs over five years. A commitment to building the GCR was one of the key objectives (Khuthele Projects (Pty) Ltd, 2006:6).Co-ordinating structures have been established. The Johannesburg ITP is based on a Strategic Public Transport Network (SPTN) based on existing roads with interchange nodes, and the rationalisation of bus and minibus-taxi services to operate predominantly on the SPTN(Khuthele Projects (Pty) Ltd, 2006:8). Areas outside the range of the SPTN will be connected through separate feeder and distribution services (City of Johannesburg, 2007:45). Tshwane's ITP emphasises the rehabilitation of commuter rail services, as does Ekurhuleni's (City of Tshwane, 2006a, Khuthele Projects (Pty) Ltd, 2006:9).

A few very prominent transport projects dominate implementation to date, including the Gautrain (relevant for all three metros) and the Rea Vaya bus service in Johannesburg. The Bus Rapid Transit System (BRT) will be integrated into the SPTN. The long-term vision of the BRT is to have a transport system that places 80% of the population of the City within 500m of the BRT route or its feeder system (City of Johannesburg, 2007:47). The Gautrain is more contentious, and it is questionable whether the service will benefit the poor in any meaningful way. From an environmental point of view, it has the potential to reduce road congestion and the number of vehicles on the roads. However, this is heavily dependent on the successful structuring of feeder networks and the integration of existing train, bus and taxi systems with the Gautrain.

The development of Gautrain follows the logic of corridor development, with the aim of integrating land use and transport planning. The underlying principles are to link infrastructure investment priorities with current and future patterns of land use; deploying each transport mode in situations to which its technical and operational strengths are most suited; and optimising opportunities for the different transport modes to support one another rather than compete on the same routes (Khuthele Projects (Pty) Ltd, 2006:14). In theory, this should serve both economic and social purposes by providing the right kind of transport to the right people at the right place in the most efficient way. The Gautrain is being viewed as a 'catalytic' project which supports the restructuring of the urban form towards the realisation of a compact city (Gautrain, n.d.:2). Globally, however, densification and mixed land uses at station nodes are more successful than park-and-ride facilities. But expecting potential commuters to relocate to within five minutes of the station, or even to use a park and ride facility, is optimistic (Donaldson, 2006:350). The feeder network is critical, because potential Gautrain commuters are likely to want to move around the city once they arrive, and not be constrained to a few routes. The city public transportation network will therefore have to be upgraded to ensure that most points in the city are within five minutes' walking distance from a bus, mini-bus taxi or train station, on a route linked to the Gautrain stations. It is a tall order.

High-level political critiques were raised in the lead-up to the implementation of the project, including from Jeremy Cronin, the Chairperson of the Parliamentary Portfolio Committee on Transport, who questioned whether the money could have been better used to upgrade existing public transport. Around 134,000 people are expected to use the Gautrain daily, while the province has an estimated 6-7 million daily commuters (d'Angelo, 2005).The train is targeted at affluent portions of the population who have their own cars (Donaldson, 2006:350). With the implementation of the Gautrain, however, these voices have become muted.

While a compact city and a hard urban edge may be important aspects of a sustainable urban form, the way these are interpreted suggests the exclusion of the hinterland, reinforcing a core-periphery model of development. As an example the Gautrain does not provide services to rural areas, even in the form of feeder networks. This is justified as "promoting rural retention" (Gautrain, n.d.:3). However, a distinction should be made between retaining rural areas as an ecological and social necessity, and the idea that anyone who lives in rural areas does not require proper services or improved access to social facilities. This is not an argument in favour of extending the Gautrain's feeder networks into rural areas, but rather an example that highlights the conceptual approach to the urban core as separable from the hinterland in all respects. Corridor development could potentially play a positive role in integrating the fragmented cities inherited from apartheid, as well as improve the efficiency of infrastructure and resources. However, the way Gautrain is structured is likely to lead to redirection of urban growth to existing urban nodes in affluent areas, without any nodal development in underdeveloped areas (Donaldson, 2006:350).

The South African National Roads Agency Network (SANRAL) had plans for upgrading and expanding the freeway network based on the state toll system, where the user pays. However, in 2006 this was still under contention, since municipalities felt that it might divert traffic onto municipal roads, and also was inequitable in that poorer users might have to pay tolls that would

be used to improve areas elsewhere (Khuthele Projects (Pty) Ltd, 2006:11-12). Another national initiative is the Railplan, which identifies priority corridors for rail investment. In Gauteng, Tshwane and southern Witwatersrand were identified for investment in 2006 (Khuthele Projects (Pty) Ltd, 2006:11).

The GCR strategy recognises the importance of sustainable human settlements as a key priority. The provincial government faced a huge housing backlog at the end of apartheid, and settlement patterns were spatially skewed. Housing policies in the first decade or so were not integrated with the economy, and even in the post-apartheid period low-income housing was located on cheap land in peripheral locations (Royston, 2003:234). The GCR approach to improving the location of housing developments is a step forward in this regard. Land for well-located housing is likely to run out by 2016 (Gauteng Provincial Government, 2006), reinforcing the idea that a densified, compact city form is required. However, this has not worked out in practice quite as anticipated. The functioning of the housing market and the role of financial institutions (e.g. redlining) has led to the entrenching of skewed settlement patterns, by class if not by race. Well-serviced and well-located neighbourhoods have seen a growth in demand and consequent growth in property values, while the reverse is true of lower-income neighbourhoods and those far from the economic centres. Government policies to build housing close to existing economic activities ironically reinforces this because as government develops housing and improves living conditions near jobs, low-income households are driven out because they cannot afford those houses (Tomlinson, 2003:82). So the poor are forced back to the outskirts, where less attention is being paid to quality of services and infrastructure.

Declining formal employment and a consequent greater reliance on a diversity of survival strategies by the poor also leads to different demands for space. And, essential from the point of view of the social aspects of housing, townships and informal settlements have become well-established places with social networks that play important roles in survival and civic life (Todes, 2003:112). This works against the basis of the city-region and the spatial frameworks it employs by calling for investment where people are - bringing the economy to the people - rather than where planners want people to be - taking the people to the economy. It also suggests that place remains important as the bedrock of associational life, an important consideration as the city simultaneously tries to develop economically and deepen democracy and citizenship.

The priorities for the provincial Department of Housing (DoH) are: the formalisation and eradication of informal settlements; development of social and mixed income settlements; regeneration of twenty old established townships; affordable rental accommodation; and urban regeneration (City of Johannesburg Housing Department, 2007:4). At this broad level, it is a good mix of developing new settlements (which will presumably be aligned with the city-region principles of infill and densification) and the improvement of old. The CoJ DoH has identified a number of ways it can align with the city-region. Noting a tendency to emphasise the economic aspects of the city-region, the city's DoH proposes that it ensures the social dimensions of development also appear on the agenda. It stresses the importance of vertical and horizontal co-ordination, and supports the assignment of the housing function to the metros in the province (City of Johannesburg Housing Department, 2007:5-6). From a strategic planning point of view,

there is already substantial alignment between the provincial and municipal housing policies and the requirements of a compact city-region. There may be some locational adjustments based on infill and densification principles.

Policy around informal settlements is critical, since it relates both to location of settlement and quality of services provided to residents. Some two million people live in informal settlements around Gauteng. These residents mostly have limited access to water, electricity or sewerage infrastructure, have to travel long distances to find economic opportunities, and live in unsafe and unhealthy conditions. Policy aims to eliminate informal settlements, either by upgrading them or by moving people into formal housing elsewhere. Upgrading is a tacit recognition that it will not be possible to move everyone into better-located housing nearer the economic core. But informal settlement is growing quicker than formal housing provision (Murray, 2008:92). Population growth in Gauteng which was almost twice the national average between 1996 and 2005 and migration to the city-region are drivers of this (Landsberg, 2005:6).In this context, "avoiding slum formation" (Ekurhuleni Metropolitan Municipality, 2005:39) cannot succeed, if this simply means preventing new informal settlements.

There may be some locational adjustments based on infill and densification principles.

Government has not always responded in the best interests of residents, sometimes getting caught in the trap of believing that economic growth and rational spatial planning trump the needs and rights of residents. This has manifested in violent evictions of the poor from the inner city and from informal settlements in an attempt to make them disappear. In turn, this has led to a rise in protest against government policies, including 'everyday' forms of resistance such as 'squatting' and illegal land occupation, redirecting electricity and water outside the formal infrastructure and the appropriation of (degraded) public spaces (Murray, 2008).

Skills

Given the apartheid legacy of poor education, the GCR and other planning documents place a strong emphasis on education. However, the stress is on skills development that serves the purpose of supporting a globally competitive city-region. That means high-end skills in the knowledge economy and high value-added manufacturing for a minority, with the majority consigned to competing for increasingly precarious, temporary employment in the unskilled labour market. Since the economy is skewed and represents the profit interests of a small elite, the emphasis on maths and science at schools, and partnerships with the private sector to produce the skills it needs (Gauteng Provincial Government: Department of Education, 2006) are indications that schools and tertiary education institutions are increasingly becoming conveyor belts for the production of the current needs of private profit. Skills development is increasingly skewed to the needs to the economy, subordinating social life to this single aspect.

The strategy also neglects to consider what happens to those who will never be able to participate in the job market: the elderly, the infirm, the disabled. The strategy does say that social services must be provided for those who remain, but only at a level of absolute necessity. The vision that appears looks remarkably similar to the one constructed under apartheid, where the 'surplus

people' were left behind in bantustans while the economically active migrated to the core economic areas. Obviously it is not as stark, since people are not legally forced to remain in these marginal areas. But economic compulsion still drives decisions people make about where to settle. Orange Farm, for example, is not purely a dumping ground for surplus people anymore. It is a place where people create their lives, build up intricate social networks that are fundamental for survival in adverse conditions. Decisions to move from this settlement might be driven by the desperate need for a stable cash income. But those decisions may also have negative social consequences, of being forced to abandon social networks and the 'social capital' that has been built up there. Even if there is no better option in the current structure of society, it is better to recognise the negative aspects of this than to portray a picture of happiness for all.

Services

As described above, the intervention framework is premised on the plan to move people closer to economic opportunity rather than develop economies where people currently are. The consequence is the entrenchment of a core-periphery divide between those with access to employment and those without. This is further reinforced by the development of well-located, and presumably well-serviced, settlements where residents can afford to pay for services, in contrast to the peripheral settlements (including informal settlements) where fixed investment is "limited to basic services" (Gauteng Provincial Government Department of Economic Development, 2007:70). Joburg 2030 explains the logic of this: "the utility expansion plan to provide basic services to residential areas in outlying regions which are characterised by low usage and payment levels and a complete absence of densification or concentration ratios to support economies of scale systematically undermines the competitiveness and sustainability of the city's basic utilities" (City of Johannesburg, 2002:4). This can be taken to task on a number of scores, including questioning the relationship between low usage and the need to pay for basic services, and the questionability of using competitiveness as a criterion for measuring the delivery of public services. It was just a short step from here to outsourcing and corporatising the service sector, which did occur in Johannesburg through the Igoli 2002 plan. Joburg 2030 saw the city's prime policy goal as "establishing a business friendly, pro-growth environment, with citizens seen as customers, with political demands and conflict being impediments for development" (Akanani et al., 2007a:34). This encourages a business mentality that constructs services as industries in their own right, that should be run competitively and profitably, which leads to policies such as 'user pays' and privatisation. It also severs the accountability nexus between the state and citizens, who are converted into clients or customers.

This approach is softened elsewhere. In the Gauteng GDS, there is recognition that basic and social services should go beyond a welfarist approach and be integrated into a holistic development approach (Gauteng Provincial Government, 2005:20). However, this is structured along the lines of the spatial development perspective of providing skills and services in order that people can move into the formal economy. Economic growth lies at the core of the development approach. Johannesburg's GDS recognises the need to balance concerns for competitiveness with the need for dignity and rights, quality of community life and access to social amenities as outcomes in and

of themselves (City of Johannesburg, 2006a:2). It suggests competing agendas within the city and province. The state does not speak with one voice.

In the early 1990s, a key debate about the post-apartheid economic and social direction was that between those who called for 'growth through redistribution' and those who called for 'redistribution through growth'. The former essentially argued that a fundamental programme of redistribution of resources would lay the basis for a new, inclusive economy. The latter countered by saying that only through continued growth was sustainable redistribution possible. A form of this debate is returning with the recent strengthening of the Congress of South African Trade Unions' (COSATU) influence in government. However, the proponents of 'redistribution through growth' have managed to entrench their position in policy at all levels since the adoption of GEAR in 1996. This is apparent in the municipal, provincial and city-region documentation, where redistribution is seldom mentioned. Where it is mentioned, it is in passing, with the assumption by now built in that redistribution is the (unspoken) goal, but the means to that end is capitalist growth. In practice, managing the entrepreneurial city has meant the corporatisation and outsourcing of public services (e.g. waste management, electricity and water supply in Johannesburg) or their privatisation (e.g. Egoli Gas).

From a social point of view, the city-region concept has applicability especially in relation to planning of human settlements and transport infrastructure. This is the case whether economic or social considerations drive the agenda. The metros in the region are inter-connected and planning needs to take place with this in mind. However, the underlying logic does become important when considering if the city-region is a model that can advance social upliftment and redress, and provide the services required by the poor.

Ecological considerations

As the economic hub of the country, Gauteng absorbs resources from surrounding areas and releases water and air pollution in particular into the surrounding areas (Gauteng Provincial Government Department of Economic Development, 2007:53). The province is congested, with human settlements, economic areas and natural conservation priority areas cheek-by-jowl with one another. As the situation stands currently, the natural environment is deteriorating. The economy is highly carbon intensive, with a very high ratio of CO_2/GDP compared to other countries (Liphoto, 2007:17). This is primarily the result of a dependence on coal for energy. Gauteng contributes 41% of South Africa's GVA, with a concentration of industrial activity in the province (Gauteng Provincial Government Department of Economic Development, 2007:11). Industry emits 65% of South Africa's carbon from fossil fuels, while only contributing 29% to GDP (Bond, 2006:2). This has resulted in a rise in average temperatures in southern Africa over historic norms of 1°C since the early 1980s (Bond, 2006:4).In the CoJ, industry and transport accounted for 71% of GHG emissions in 1994, and the residential sector accounted for another 17% (Liphoto, 2007:6). This ecological deterioration is acknowledged in core policy and planning documents.

The provincial government has sustainability and efficiency as one of its four policy objectives. The GCR strategy recognises the ecological problems of air and water pollution, and inefficient land use patterns. Environment and sustainability is placed on a list of priorities. However, this is

not spelled out any further in the strategy. The provincial GDS (Gauteng Provincial Government, 2005:12) refers to "healthy ecosystems and ecological processes" as an outcome of sustainable development but also goes no further in detailing what this means or how it might be achieved. The GDS refers readers to the provincial Environmental Implementation Plan (EIP), and has a few lines about how the plan will ensure an environmentally sustainable development path, but without any more content (2005:14). The EIP was not publicly available at the time of writing. The GDS does state that Environmental Impact Assessments (EIAs) will be conducted as part of development planning initiatives, and that compliance with all necessary environmental requirements will be ensured (2005:23).

From a legal point of view, local government is responsible for the promotion of a safe and healthy environment. This includes specific responsibility for air pollution, energy provision and waste management (Liphoto, 2007:3). National policies and laws guide local government in its approach to these issues. Environmental concerns were not well-integrated into the CoJ's overall vision, especially Joburg 2030, a point that was recognised in the city's Growth and Development Strategy (City of Johannesburg, 2006a:7). Environment became one of 12 sector areas that formed the basis for the GDS. In particular, the GDS recognises the need to promote environmental justice, by reducing the weight of urban-environmental risks and shocks, and by improving the environmental quality of life for the poor (City of Johannesburg, 2006a:52).The CoJ has four policy responses to climate change: an Air Quality Management Plan, a Cleaner Production Policy, an Integrated Transport Plan and a Density Policy (City of Johannesburg, n.d.:20).The important issue is whether these can be aligned across the province without institutional restructuring. The other metros also refer to environmental sustainability in their growth and development strategies, but in fairly schematic ways. Content on the environment in the Tshwane GDS (2006b) is limited to indicators. Ekurhuleni (2005) has some broad statements of intent. In none of the strategies is there any regard for the potential city-regional dimensions of ecological management and sustainability.

From an environmental point of view, human settlement poses a conundrum.

The threat of urban sprawl encroaching onto ecologically sensitive land demands a more compact urban form (Gauteng Provincial Government Department of Economic Development, 2007:57), especially through infill development and densification. From an environmental point of view, human settlement poses a conundrum. Overcrowding can give rise to unsustainable pressures on infrastructure and resources, but low density development takes up space and can put pressure on natural resources through urban sprawl (Gauteng Provincial Government, 2004:18).

Gauteng is heavily reliant on road transport, and has 37% of the countries vehicles (Gauteng Department of Agriculture Conservation and Environment, n.d.:192). Road vehicles are the most environmentally damaging type of transportation, and also have significant health and safety risks for people. The GDS identifies the provision of accessible, affordable, reliable, integrated and environmentally sustainable public transport system as a "strategic lever" in carrying the strategy forward (Gauteng Provincial Government, 2005:24). It specifically refers to the reduction of private motorised transport. It is well-established that public transportation is more environmentally

friendly that private transportation, because there are fewer vehicles on the road, and this means both that there is less pollution per person, and that fewer roads are needed.

A consultant's draft report on environment and the GCR prepared for the CoJ focuses on how environmental issues impact on the formation of a city-region, with an emphasis on global image (SEF Africa (Pty) Ltd, 2006:4). The report does highlight fragmented responses to environment at a municipal level, and calls for single identifiable decision-making authority at a regional level (2006:5) - without considering the existence of the province. The report does make some valid suggestions about how to reduce the 'city metabolism', including: maintenance of public open space in the city core; development of mixed-use neighbourhoods which reduce travel; urban greening; and green building design. But there are questions about whether the realisation of the integration of ecological concerns into the structure of the urban form are at odds with the logic of densification, infill development, the focus on nodes and corridors of development and so on which are at the base of the spatial agenda in Gauteng. For example, densification might clash with the maintenance of public open spaces within the city core or appropriate sites for green building. Mixed-use neighbourhoods might contradict the development of clearly-defined economic nodes (SEF Africa (Pty) Ltd, 2006:11, 16).The CoJ recognises that the need to contain outward sprawl of new high-value developments will impact on its future revenue (City of Johannesburg, 2006a:44).

Ecological modernisation is found throughout the policy statements, strategies and conceptual frames. As described above, ecological modernisation sees no inherent conflict between capitalist economic growth and ecological sustainability. It orients approaches to the environment towards seeing how environmental sustainability initiatives can be profitable in their own right. At a national level, the Department of Environmental Affairs and Tourism's National Climate Change Response Strategy (2004) states that the Kyoto Protocol's Clean Development Mechanism "primarily represents a range of commercial opportunities, both big and small. This could be a very important source of foreign direct investment". Ina background paper prepared for the CoJ, the suggestion is that adherence to the Kyoto Protocol is often a requirement for international customers, and that enforcing compliance can make the GCR more globally competitive (SEF Africa (Pty) Ltd, 2006:18). Encouraging the development of profitable responses to ecological challenges may have limited validity, but it begs the question about what happens if no solutions that are profitable (enough) arise. It also leaves it up to private decision-makers acting in their own interests to invest in finding solution, when a statutory response is required.

Within the framework of sustainable development as a balance between economic, social and ecological interests, the core documents do indicate that environmental sustainability is an important policy goal. Yet there is nothing in the documentation to indicate that a city-regional scale of governance is essential, or indeed even necessary to realise these goals. The SEF Africa report (2006) on the environment and GCR focuses very little, and unconvincingly, on whether the city-region level is the most appropriate level for ecological management and sustainability. Appropriately, the most thorough consideration of the broader ecologically relevant inter-connections occurs at the provincial level.

Responses to the ecological challenges facing South Africa need to be dealt with at a range of scales. National government has a critical responsibility in developing standards and targets for emissions reductions. However, implementation happens in specific places, and it is the responsibility of local governments to apply measures to reduce GHG emissions. In some instances, this can be done without having to co-ordinate with other local governments: for example, capturing and cleaning methane from landfills and converting it into energy, or recycling garden refuse, or designing and building energy-efficient housing. Other activities require greater co-ordination: for example, energy-efficient transportation systems cannot stop at the boundaries of a single local municipality. However, there is no argument presented as to why provincial government cannot co-ordinate these responses as well as conducting detailed regional planning across the province. As much as environmental impacts transcend administrative boundaries, they also transcend boundaries of economic flows. It must be concluded that a focus on effective co-ordination of existing spheres of government is more important than the creation of a new, city-regional level of governance.

Governance

The economic, social and ecological dynamics of urban areas transcend the existing administrative structures, rendering these incomplete. The argument in favour of a city-region is based on the idea that flexible, functional integration of existing authorities is required, and on the idea that other stakeholders (i.e. private sector and civil society) are more formally incorporated into governance structures. The need for better integration and co-ordination both vertically (national, provincial, municipal) and horizontally (between the municipalities in particular) is well-recognised. In practice it is more difficult to realise, not only because of a variety of planning and budgeting processes, but also because of territorialism and status issues.

The governance model that has been developed for the GCR is: i) structurally polycentric; ii) sectorally integrative; iii) functionally narrow governance structure, with a focus on strategic interactions and joint planning; iv) geographically 'fuzzy'; and v) institutionally flexible, starting from a small core and building over time. The approach is to improve co-ordination; identify flagship/high-level initiatives; embed the concept; and measure progress, and the strategy provides practical steps that will be taken to realise these (Gauteng Provincial Government, 2006).

Some level of co-operation is required as an alternative to competition between municipalities to realise potential economies of scale and synergies. Where each municipality or metro competes against its neighbours, these possibilities are damaged. 'Competitive regionalism' (co-operating internally to compete with other regions) involves networks of public and private sectors, working with higher tiers of the state, to focus economic development efforts for the benefit of the region as a whole (Gauteng Provincial Government, 2006:7). The benefits are seen to be a combination of economic and social. When it comes to identifying the challenges of building a competitive city-region, the issues are mainly related to institutional structuring and co-ordination (Gauteng Provincial Government, 2006:16).

A key challenge is on the division of labour, since each sphere of government has its own constitutional mandate. There is no question of the city-region displacing the national state

and its responsibilities for development. The concept is embedded in the notion of bringing the developmental state down to the city level, with the role of the state being to drive spatial development through state-led investment (Olivier and Berrisford, 2007:16).At a municipal level, the idea of a 'super-municipality' was considered, but is generally regarded as unworkable, partly because of sheer size (Akanani et al., 2007b:10), and because it would lack sensitivity to local needs (Allen and Heese, 2007:20). The understanding is that no constitutional changes would be required, but that municipalities and the province will need to co-ordinate their activities more closely. New structures could be formed, but only through the voluntary participation of the existing structures. For example, there could be a single command structure across the metros and neighbouring municipalities to enable law enforcement agencies to combat crime (City of Johannesburg, 2006b:29). The emphasis is on voluntary participation by municipalities, with political will being the most important factor. Global experience suggests that voluntary arrangements are the weakest model for city-regional governance because they rely on consensus (Olivier and Berrisford, 2007:8). In order to realise this consensus, one possibility is to start with the core of the city-region (the three metros) and expand out over time as the process develops.

A different option could be to hand co-ordination responsibility to a mutually agreed regional authority, like a GCR Planning Commission (Olivier and Berrisford, 2007:8). Key issues to be addressed would be the boundaries, or area of coverage, of the regional authority (i.e. who is in and who is out), the functions it performs, its institutional structure, and how this relates to the current municipalities (Akanani et al., 2007b:14). Using an existing agency, like the Gauteng Economic Development Agency (GEDA) to co-ordinate the GCR is another option (Umhlaba Development Services, 2007). The Municipal Systems Act 32 of 2000 permits the establishment of a "multi-jurisdictional service utility" to perform municipal functions (Akanani et al., 2007b:16). This could either be a permanent structure or a stepping stone towards the eventual formation of a Gauteng city-state where the province's powers are diminished and that of municipalities is increased. A number of possible models for the restructuring of local government in Gauteng are on the table, but will need to wait for the outcomes of the national level review of local government (Akanani et al., 2007b:76-77). Because provincial and municipal functions are constitutionally determined, a new city-regional authority would have no powers to determine budgets or allocate resources. Nevertheless, it could provide valuable co-ordinating and integrating functions.

In the spatial conceptualisation of the city-region, some functional flows cross the administrative borders to the south-west and east of Gauteng province. It seems that the inclusion or exclusion of these (relatively minor) flows will have a significant bearing on the institutional forms of governance. If they are included, this creates a co-ordination challenge for the province. If they are excluded, there is no compelling reason to create a city-regional governance structure. Even if the broader area is considered, the daily movement of people is overwhelmingly concentrated within the existing borders of the province (Gauteng Provincial Government Department of Economic Development, 2007:30).

The urban form is less important than the agenda being pursued, and an outstanding question is in whose interests the city-region is being constructed. As discussed in the section on global experiences, this is an ongoing contestation between different more or less well-organised

constituencies to influence the path of the urban form and urban governance. The economic and political structures inherited from previous phases of development, both hard and soft (socio-cultural and institutional) should be considered to understand how the idea of the city-region has gained currency. Two distinct attempts were made in the past to shift Johannesburg onto the path of a globally competitive city. The first was from 1991, and was based on mainstream urban entrepreneurialism strategies involving a typical property-led development programme (physical regeneration and investment in building and infrastructure), an aggressive marketing campaign, and an emphasis on speculative sport and culture programmes as vehicles for investment (Pillay, 2004:354-5). The second attempt followed democratisation and focused on stabilising decline and decay and promoting neighbourhood development as a precursor to growth (Pillay, 2004:355).

The two attempts represent a shift in strategy more than in the underlying coalition of interests. The state is driving the implementation of the city-region through the Premier's Co-ordinating Forum, a structure established in 2000 and incorporating political and administrative heads of the province and Gauteng municipalities. But in both strategic interventions, the state at various levels teamed up with "a diffuse and diversified set of networks dominated by the large-scale owners of capital, such as real-estate interests, corporate builders, large-scale property owners, finance and banking, and well-entrenched lobbying surrogates" (Murray, 2008:46). The second attempt transfers far more authority to the private sector to drive investment and the urban form, both through a reduction in "state-sanctioned municipal authority" (Murray, 2008:46) and a strong emphasis on public-private partnerships. In Lipietz's (1994) typology (described above), the dominant coalition clearly represents a modernist agenda, advocating change in the capitalist hegemonic system. The strategic changes from the early 1990s are in line with the more outwardly-oriented direction of government policy more generally - the creation of an open economy linked into global flows.

Given the fragmented and weak character of (non-private sector) civil society organisation, the state has taken on the mantle of representative of the poor, but with a modernist ideological slant that merges (or at least considers there to be significant overlap in) the interests of the poor with those of capitalist accumulation in a global context. Elements of a more radical agenda may exist in pockets within the state, but its fragmentation reflects that of its civil society constituency. The subordination of a radical to a modernist agenda was partly a product of the historical balance of forces in society (including the deliberate demobilisation of the mass base in the period of negotiations in the early to mid-1990s). This led both to a conception of governance as extending beyond government, and also on the belief that the state on its own did not have the resources to deliver on its mandate.

The strategy led to the emergence of cross-sectoral PPPs as the new institutional form that would activate competitive city governance. It converged neatly with the broader focus on privatisation of state assets as the proposed way out of a deep fiscal crisis bequeathed by apartheid. Examples of PPPs in Gauteng include the Cradle of Humankind Interpretation Complex (a build, operate and transfer partnership) and the Gautrain (develop, build, finance, operate and transfer). A number of others are in the pipeline, including Gauteng Kopanong Precinct Working Environment Service Delivery; reconstruction, revitalisation and upgrading of Chris Hani Baragwanath Hospital; and

building, maintenance and upgrading of Department of Education facilities at the provincial level. Tshwane, Johannesburg and Rustenburg municipalities were also entering into PPPs at the time of writing (National Treasury: PPP Unit, 2009).While PPPs may be of value in leveraging vast privately-owned capital for the development of infrastructure, this comes at a cost. The transfer of ownership and/or control that characterises them changes the operational calculus of a service from 'public good' to 'private profit' and changes the political relationships between citizens and the state (McDonald and Ruiters, 2005:3).

The existence of a broadly accepted representational structure may be a precondition for the formation of a coalition of interests that provides the social base for economic expansion. It is necessary but not sufficient, since it only opens up the possibility of forming that coalition, without actually realising it. This requires leadership that can (jointly) formulate a vision and operationalise it while maintaining coalitions with internal contradictions. Given the importance of the Gauteng urban core to the national economy, this might even be considered to be a critical building block in the construction of a post-apartheid hegemonic bloc. The city-region becomes a central pillar in the development of a common vision that cements the common interests of power-wielding interest groups not only at a regional but also at a national level. For some of these interest groups, the city-region is necessary, but for others this new territoriality may be merely contingent (Jonas and Ward, 2007:176). Concrete analysis needs to be done to understand what the internal dynamics are between the interest groups within the dominant coalition, and how the coalition relates to external interest groups. The South African political arena is also in flux at present, and it is possible that the social base of the dominant coalition might alter. It is significant to note that COSATU, as the largest organised progressive force in civil society, is minimally involved in the conceptualisation or detailed decisions regarding implementation of the city-region. And where COSATU is not represented, it is certain that other, smaller, less politically-connected civil society and community organisations are not represented either. The city-region is then driven by 'bipartite' arrangements between the state and capital.

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There is little, if any, political/discursive contestation directly related to the concept of the city-region from formations that might pursue either radical or conservative agendas. No doubt this is partly because of a lack of knowledge about the concept at grassroots level. The idea was incubated from above and is only slowly being disseminated into the discourse of city plans and governance. Slowly enough, let it be said, for an agenda to be solidified. This lack of explicit contestation is also partly because the notion of a city-region is an abstraction from the lived experiences of the majority of the population. But this should not be taken to suggest that there is no contestation around the implementation of the city-region. The recent taxi industry protests against the distribution of benefits from the BRT is a case in point - a strong, organised opposition to a concrete intervention informed by the strategic vision of a city-region. Other very widely divergent examples can also be identified. Beyond the headlines, numerous residents - whether in organised groups, or as socially atomised individuals or as "free-floating social clusters operating outside the formal institutional frameworks" (Murray, 2008:22) - intrinsically shape the city. Their struggles for survival are not directly linked to the concept of the city-region, but include specific acts of resistance to the negative effects on their

livelihoods generated by the contradictory logic of the city-region. In the illegal occupation of buildings, tapping into electricity lines, organising access to land and shelter outside the market, utilising public spaces for survivalist ends, and myriad forms of "petty entrepreneurialism", the urban poor resist their exclusion from the city (Murray, 2008:22). On the other hand, the freedom for real estate developers to decide when and where they invest sometimes acts against the strategic vision of the city-region. In total, these constant struggles shape the real life of the city as much, if not more, than the strategic vision.

Is deepening democracy and popular participation a strategic goal of the city-region? In the final GCR strategy document, democracy is mentioned only once, with the implicit assumption that administrative decentralisation automatically leads to deeper democracy (2006:9). In the road map which details strategic plans until 2010 (Gauteng Provincial Government, 2007), democracy is not mentioned at all. Participation is mentioned just once, and only in relation to participation in the economy. There is no reference at all to greater popular participation in governance as a strategic goal. In Johannesburg's 2030 strategy the only reference to participation is of business participating in governance decisions (City of Johannesburg, 2002:136), but no reference at all to popular participation. The Gauteng GDS, on the other hand, is explicit about participatory democracy as one of its strategic goals. Since this is one of the framing documents within which the GCR is nested, this is a positive sign. But it is clear that a disconnection remains between the principles of the GDS and the practical implementation of the GCR on a number of scores.

According to Pillay (2004:360), local political integration and representation have been consolidated in Gauteng following local elections. This is one step in establishing legitimacy in urban planning. However, direct, active participation in governance processes is uneven geographically, in terms of interest groups and across time. A recent survey of the Urban Renewal Programme (URP) nodes - which includes Alexandra in Gauteng - found that just 11% of the population had heard of IDPs. This was unchanged between 2006 and 2008. Of those who had heard of IDPs, just 37% had participated in the public process across all urban nodes. The information is not disaggregated in the report, but Alexandra was a fairly typical case of the poverty nodes (Everatt and Smith, 2008:52-53). The IDPs are also limited in that public participation is essentially a consultation exercise, with little other input or active involvement from the citizenry after the consultation. The IDP is a very important conduit, but needs to be supported more systematically as the primary planning tool with devolution of resources to support the plans.

Indicators have been developed to measure the performance of the city-region and compare it with others around the world. Indicators and benchmarking both play an important role in supporting the convergence of global policies (Cammack, 2006), which enhances the unimpeded flow of capital around the world. CUBES (2007b:3) prepared a framework on benchmarking the city-region that included the principles of accessibility, comparability and reliability. It considers regions that the GCR should be compared to. An accompanying paper (CUBES, 2007a:38-43) suggests a series of indicators based on measuring and monitoring the scale, depth of city-region characteristics, and quality and inequality of life. Scale indicators are mainly derived from statistical information and a key challenge is comparability with other regions. Depth indicators are from a more diverse range of sources and includes characteristics - such as 'citiness', connectedness, institutional

thickness - that are difficult to measure in any way that has comparative meaning. Quality of life indicators exhibit the same challenges of measurability. While the range of dimensions that CUBES suggests should be measured is broader than a purely economic set of indicators, it takes a quantitative approach, looking for statistical representations of complex social phenomena.

There are difficult enough challenges in ensuring that straightforward economic statistics are accurate (for example, the ongoing dispute about the accuracy of unemployment figures and the way they are measured and defined). But when it comes to measuring something like 'leisure and recreation', it is of limited value to try to measure the proportion of leisure time to the average working day, or to measure the amount of recreational space as a proportion of total space in the city-region, as CUBES suggests. It hardly needs to be stated that these two measures will get nowhere near an accurate reflection of leisure in the city. A greater emphasis on qualitative measurement might assist. While the indicators suggested in the CUBES paper are wholly inadequate, at least there is an attempt to consider indicators beyond the purely instrumental or functional economic ones. Robinson and Boulle (2008:28-32) add ecological sustainability as another set of indicators, and also propose spatial, knowledge and connectivity infrastructure and innovation indicators amongst others. City of Tshwane (2006b:42-49) includes a detailed list of indicators in its GDS.

Conclusion and research agenda

The GCR adds another layer of complexity onto an already over-complex planning and co-ordination framework. Logic suggests that the Gauteng provincial government retain the authority for integration in the region, adopting the core principles and approach of the city-region. Where it is necessary to align with areas lying outside the province's jurisdiction, special agreements with the relevant authorities can be made focusing on specific content areas. This is likely to be most relevant for transportation, environment and to a lesser extent human settlement and health. The Integrated Transportation Plan provides a useful model for how this can occur.

Adopting a city-region approach rather than locating the development strategy at provincial level suggests the marginalisation of those parts of the province that do not fit into the existing pattern of economic development. This is the general logic of the NSDP and, while it might make economic sense, it does not fit well with social redress. It imposes an economic imperative on outlying populations (many of whom were located there not through their own choosing) to move if they want to survive. This is the image of the NSDP: a few intensive economic and social hubs connected to each other by corridors in a vast sea of emptiness. The rural expanse is occupied by a very small minority of large-scale industrial farmers who themselves are linked into national and global commodity chains via transport corridors. It is a bleak picture, ripping the humanity out of the landscape, imposing abstract economic space where today there exists (at least partially, in fragmented form) social space.

That image of the country as a whole is mirrored in the vision for Gauteng. The city-region is the relevant, dynamic space; all other spaces must submit to it. By shaping the boundaries purely on the basis of economic flows and linkages (regardless of the rhetoric about social development and ecological sustainability) it explicitly excludes anything outside those boundaries. It reduces the

accountability of government to the citizens living in those marginal areas, because resources are directed away from them and strategic plans and governance structures exclude them, or only include them in a subordinate relationship to the economic centre.

And this vision continues deeper, until it is inside the city-region, inside the city. Disregard those areas that do not fit into those parts of the space-economy that are, or have the potential to be, linked into global flows; that might become globally competitive; that become abstract points (they could be anywhere) in the flows of capital and information. Maybe assist the people living there to find a way into that economy by providing the right skills, the right language, the right mentality.

The fundamental question is how is it possible to create a decentralised economy that involves people where they live producing goods and services that they need? What alternatives present themselves? Instead of orienting outward, desperately looking for the solution in a global system in crisis, is there no possibility of orienting towards the people themselves, their energies, their desires and needs, building on what they have and what they do every day, rather than trying to corral people into a rigid, top-down system that is irrelevant to their lives?

This makes management of growth and development a very different process to one where urbanisation is 'mature'...

There is need to consider the context-specific conditions facing different cities - the location of cities and city-regions in a global hierarchy is based on a normative model that assumes that the conditions for success are the same for all cities. Agglomeration of economic agents is a common feature of most global cities, North and South. But, unlike cities in the North, those in the South face rapid growth and extensive development in a context that is based on initial low levels of urbanisation, restricted modern sectors, and unevenly developed infrastructure (Pillay, 2004:343). This makes management of growth and development a very different process to one where urbanisation is 'mature', the economy is diversified and infrastructure is well-developed. African cities in particular exhibit increasing informality in major areas of economic activity and a declining capacity to provide services and infrastructure to their populations (Pillay, 2004:346). This has implications for global competitiveness, but also for governance and for priority-setting that could well set these cities on a path that differs from the normative model that the mainstream global city literature encourages them to emulate.

Considerations for a research agenda

At a global level, the city-region concept has emerged from within neo-liberal thinking about city governance. It tends to be a technocratic/managerialist response both to the contradictions thrown up in the capitalist city as well as some of the regulatory challenges facing city managers. Scales of governance may be neutral, but there are real coalitions and forces that drive certain scales of governance with particular agendas in mind. These are always contested, whether these contestations are explicitly in opposition to the scale of governance, or whether they are struggles around the practical consequences of adopting a particular level of governance. We thus need a concrete analysis of the socio-political context of emergence of city-region in Gauteng. This raises a number of key questions:

i. What is the coalition of forces pushing the city-region concept, and what is their basic agenda? The role of class interests, political alliance formation, and conflicts around the management of collective consumption and social reproduction need to be considered in their concrete manifestations.
ii. How is this agenda manifested in practice, i.e. what are the concrete, specific activities that are carried out to realise this agenda?
iii. Which social forces are benefiting or stand to benefit from the dominant agenda, and which are losing or stand to lose? Just because the agenda is 'dominant' does not automatically mean that it should be rejected outright. The challenge for GCRO is to untangle the contradictory forces and strands that constitute the city region in its concrete reality, and to use the knowledge and analysis it generates to support specific activities aligned with its openly stated agenda. Answers to who gains and loses from the implementation of the city-region in Gauteng can give us a sense of the political orientation of the project.
iv. What forces are contesting the city-region both at a conceptual level and at a level of practical consequences? What is the basis of their contestation?
v. Who is included and who is excluded from systems of governance, and how? What is the relationship between participatory governance, as practiced in Gauteng, and the city-region?

'Observatories' like the Gauteng City-Region Observatory (GCRO) are presented as neutral (often technocratic) institutions that merely quantify the extent to which a city region is meeting pre-defined targets of growth, investment, equity, 'quality of life' etc. However, many aspects of the growth of a city cannot be reduced to numbers. Further, no institution is value neutral. GCRO needs to define its own values more explicitly, so that it can play an open role in supporting particular orientations in the city region. For example, is the GCRO 'pro-poor'? If so, what is the concrete content of this, and what are the concrete forces and formations in the society that can advance this agenda in practice? What role can the GCRO play in supporting an agenda based on its own explicit values? This includes how the GCRO might involve social formations, with which it shares a vision or agenda, more directly in the city region discourse. What role does the city-region level of governance add to the agenda of GCRO?

It is important to recognise that agendas based on the city-regional scale of governance as well as the results will contain contradictions. GCRO can play a vital role in tracking and understanding these, because they reveal potential points of intervention for progressive tendencies in the state and amongst social and political actors to insert transformative content and actions into the uneven and unequal spaces of the city-region in formation. In this way, the GCRO transcend a purely technocratic monitoring of indicators and benchmarks to reveal some of the social depth involved in the ongoing formation of the city as a lived reality.

All of the points above rely heavily on GCRO's ability to get people on the ground to engage with the 'messy reality', including concrete analyses of the flow of goods, people and finances, rather than abstracted ideas in a policy document. This means being willing to look at the limits and pitfalls of the city region concept in practice as much as looking for the opportunities and possibilities it presents.

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