GLOBAL CITIES AND GLOBAL FIRMS?

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ABSTRACT

This paper traces recent developments in the worldwide observed trend towards more and larger cities as well as trends in global production structures. In both areas the last decade has been characterized by important changes: For city developments the emergence of mega-cities in poorer parts of the world is the most spectacular and indeed dramatic development. But growth of the largest cities in OECD countries is remarkable too and poses severe — though different — problems for policy makers. And there is a global renaissance of the emergence of medium-sized cities, a phenomenon particularly important for macroeconomic policy. Part 1 of the paper will survey these urbanization trends. In part 2 a closer look at recent developments in the global structure of production units, of firms, will be taken. While there has been a sharp rise in the importance and influence of globally acting transnational corporations in the last decade, it also proved to be an ever more substantial task for economic policy to support and evolve structures of medium-sized firms which provide a rapidly growing share of employment. Higher employment volatility (geographically) of transnational corporations thus has to be contrasted by employment policy measures that redistribute the gains from higher labor productivity and global division of labor to increase welfare. Again the essential features of these changes will be highlighted. In the final third part of the paper connections between trends in both areas are identified. Indeed global specialization, diversification, urbanization and welfare policy measures form an interdependent dynamics, which only can be understood as a an evolving unity. This is what this last part of the paper will sketch.

I. INTRODUCTION

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In part 2 a closer look at recent developments in the global structure of production units, of firms, is taken. While there has been a sharp rise in the importance and influence of globally acting transnational corporations in the last decade, it also proved to be an ever more substantial task for economic policy to support and evolve structures of medium-sized firms which provide a rapidly growing share of employment. Higher employment volatility (geographically) of transnational corporations thus has to be contrasted by employment policy measures that redistribute the gains from higher labor productivity and global division of labor to increase welfare. Again the essential features of these changes are highlighted.

In the final third part of the paper connections between trends in both areas are identified. Indeed global specialization, diversification, urbanization and welfare policy measures form an interdependent dynamics, which only can be understood as a an evolving unity. This is what this last part of the paper sketches. It is argued that the emergence of global governance institutions is both: feasible and necessary. In installing global political and economic governance the necessary stabilizing democratic feedback control can be provided, based on which the social innovations explored in global cities as well as the technological innovations explored in global firms can be tested.
II. CITIES

Even the briefest glance at economic history reveals that the growth of cities in the world is a long-run trend. Apart from the evident contribution of the long-run growth of global population, the centralizing forces at certain locations, at cities, clearly play a very special role for political and economic processes.

Agglomeration of a large number of citizens in a comparable small area makes interdependencies between them particularly strong. There is an immediate need for regulation of daily interaction, rules must be clearly visible, enforceable, and generally accepted by the inhabitants of cities. It is thus not surprising that the city, the ancient polis, can be considered as the place of birth of politics. Political rule systems - as a codex of rights as well as serving as a system to change and to adapt these rights - were designed to provide an organic framework of behavioral guidelines. These guidelines were the blueprint for all rights-and-duties systems at all scales of social organization. The duties often came in forms that should limit mutually destructive interactions, from vendetta to the avoidance of traffic jams. They made it very obvious to city populations that everyone will experience a common fate, that there is no way out into a singular, individual perspective. On the other hand the rights given to citizens often freed them from unfortunate social relationships and economic distress in the countryside. The tight economic net of a city opened up opportunities to redefine the individual fate. City governments attracted new citizens by guaranteeing special rights, providing a social role and at the same time a certain amount of anonymity. In that sense the city indeed is the focal point of the modern societies after the end the feudal relationships of the middle ages. Not only the common fate of its inhabitants becomes visible, there also emerges the experience that the politically determined individuals can design this fate, emancipation is possible.

Economic interaction, which goes beyond politically regulated directly exerted power, mainly is organized via markets, via places of exchange where potential market participants meet. At first glance the power of participants solely depends on their economic resources, how much money they possess, what goods and services they can offer. The use of direct coercive power is ruled out by the monopoly of such power on the side of political authorities. Since markets are characterized by their ability to link supply and demand, bridging discrepancies in time and location, they often were the nucleus for the emergence of a city, the latter just being an agglomeration of markets. Cities emerging at coasts and rivers are just pointing at the importance of waterways for transport in the times when they were founded. The large centers of hegemonic empires, Amsterdam, London and New York, typically show how the coincidence of political and economic dominance materializes in a geographical location, a physical center of all power.

The location of large modern cities thus often can be explained by the coincidence of geographical properties and economic needs for market centers. As a consequence financial intermediaries were attracted, an elite of people with the abilities necessary for planning and political administration emerged. The growth of the fastest growing cities contributed to their reputation and initiated a self-enforcing acceleration of further growth. In 1955 one of the first economic models describing such a process - and the resulting distribution of city sizes - was proposed by Nobel laureate Herbert Simon [Simon, 1955]. As this year’s Nobel laureate Paul Krugman remarked, the size distribution produced by this model fits incredibly well to the empirically observed one.

One of the empirically most important elements involved in city growth was totally ignored in this class of models: Where the new city population comes from is not specified, but in reality rural exodus (sometimes waves of migration from endangered regions) is just the other side of the same coin. Thus for any given overall growth of population, higher growth of population density at one location always implies lower – perhaps even negative – growth in other places. On a global scale population movements take place in a closed system. Nevertheless it has also to be kept in mind that growth is a dynamic process, moreover one that usually is characterized by pulsation – it is not moving along a smooth equilibrium path. The claim that exceptional population growth in one location has always to be understood as an overall process, which incorporates growth losses in other locations can never be limited to national borders. In the long-run large migration flows, concentration processes and sometimes life cycles of city development have escaped all overarching simple modeling attempts. Though Thomas Friedman in a popular publication for the educated public proclaimed that the contemporary ‘world is flat’, closer empirical analysis shows that this is not the case. There simply is no global ‘race to the bottom’ (Friedman) of possible wage levels due to vanishing distances in an electronically connected, hyper-flexible world economy. There is no loss of importance of local (also spatial) conditions. The trend towards flatness - also implying city structures and sizes, which resemble more the predictions of central place theory – cannot be observed. In a recent contribution Stephen Brakman and Charles van Marrewijk refer to Friedman and provide a table (reproduced below) presenting their empirical evaluation of Friedman’s claims.
Capitalist dynamics after World War 2 thus typically still do not push inequalities it encounters to move to common equilibrium levels, the forces of competition pointing in that direction most of the time are dominated by actions of profit-maximizing behavior, which rather use and even deepen inequalities encountered. This is not only true for the choice of location but evidently also for traditional wage differences - including the gender gap in wages.

The emerging mega-cities of the world are proof for this development. Though there is a slight convergence in global income distributions since 1980 (if it is corrected for country), this clearly can be traced back to enormous boom in China and to a lesser extent in India. Income distributions within countries in the last decades undoubtedly became more unequal. Since the national strengthening of exploitation showing up in income distribution is mainly caused by national sources, it is not surprising that mega-cities emerging in different types of countries have qualitatively different features. Cairo can hardly be compared to London.

A look at the extremely long-run developments reveals the strong interdependence between political economy, demography and city structures. The major differences of mega-cities in OECD countries and mega-cities in developing countries also are differences in the most acute problems: Transport problems here, slums and basic infrastructure there. In the light of the current crisis of international finance, the indebtedness of city governments will hit the poorer cities particularly hard - local catastrophes and revolts are at the doors. But also large financial centers in OECD countries might experience unexpected problems as soon as a large part of their local economic activity falters. Reactions on all of these difficulties might well include return to the application of more direct coercive power of political authorities: command economy instead of market solutions, police instead of self-organizing civil forces. Probably the sheer growth of size of mega-cities would have lead to such developments sooner or later anyway - the financial crisis only did speed up this development.

Countervailing forces pressing for further democratization despite - and against - the increase in coercive power mechanisms will have a hard time. But their case will not be hopeless if they are able to propose sophisticated, democratic control mechanisms; feedback that not only helps to channel necessary design in the right direction, but also provides a sense of confidence and competence for the citizens. Information and communication technologies will play a pivotal role in these proposals. Complementary to city development the fate of the hinterland must never be forgotten. From the perspective of evolutionary economics the adequate modeling framework to be aimed at should not be any kind of common equilibrium growth path, but rather a somewhat controlled type of pulsation, which promotes social and technological innovation - on local and global scales. A fruitful introduction of novel solutions always needs support, be it a well-educated human capital stock be it general availability of other infrastructure. It is towards these directions, goals at which the efforts of city governments should be aiming at today, despite financial difficulties.

<table>
<thead>
<tr>
<th>Friedman's claims</th>
<th>Observation</th>
<th>Support?</th>
<th>Facts</th>
</tr>
</thead>
<tbody>
<tr>
<td>'Run faster to stay in the same place'</td>
<td>1</td>
<td>No</td>
<td>Most countries do not stay in the same place, but grow STRESS INCOME DISTRIBUTION.</td>
</tr>
<tr>
<td>Competition creates 'a more level playing field'</td>
<td>2, 3, 4A, 4B, 6</td>
<td>Mixed</td>
<td>Income data show divergence, instead of convergence, correcting for country size shows recent--as of 1980--income convergence. Increasing income inequality within countries has domestic causes (technological developments).</td>
</tr>
<tr>
<td>'Hierarchies are being challenged from below'</td>
<td>5</td>
<td>No</td>
<td>Hierarchies indeed change over time, there is, however, no sign that this is presently the case or will be the case in the near future (China is too far behind).</td>
</tr>
<tr>
<td>'Death of Distance'</td>
<td>7</td>
<td>No</td>
<td>Distance is not dead, nor is it decreasing. If anything, there is a tendency of distance to become more important.</td>
</tr>
<tr>
<td>'Small companies could suddenly see around the world'</td>
<td>8</td>
<td>Mixed</td>
<td>Most FDI takes place between rich countries, indicating that firms look for high wages of consumers rather than for low wages of workers. However, developing countries are increasingly a destination for FDI flows, which is a recent phenomenon.</td>
</tr>
</tbody>
</table>

Source: [Brakman and Marrewijk, 2008].
III. FIRMS

Societies’ production units always have been the core of their reproductive capability. It is this perspective, which tempts economists to consider their science as the queen of sciences. Indeed division of labor to achieve higher overall productivity implies the existence of an organizational form that binds the separated activities together; it implies a production unit guaranteeing production unity. Beginning with the first social forms parallel working units co-existed with hierarchically and sequentially positioned production units. The concrete type of work to be performed determined the size of a unit, with stepwise additional parallel units and innovations of more complex hierarchies in case of increasing land size.

Separation of political authority from economic authority is a historically rather new development. Bourgeois owners of factories that could be distinguished from feudal landlords needed a bourgeois revolution to consolidate their position. Once established the new order fixed and stabilized its working by enforcing a law system guarded by an executive of functionaries. The word ‘firm’ therefore is just the legal expression for a production unit in the age of the capitalist mode of production. Note that such a nominal distinction between production units cuts right through the many still existing links between the different concrete working processes that enabled the reproduction of society. The seeming independence of a firm was mirrored by its independence with respect to its goal: Not reproduction, but accumulation of its individual wealth became its overall intention. Wealth necessarily comes in an abstract form: money as a store of social value has purified its function since 700 B.C.; it nowadays is just an accounting device, a sign system authorized by the relevant political authority in the area where it is used.

The political framework in which firms are embedded is thus of decisive importance. It guarantees the existence of the medium which lies at the heart of the processing of firms, which is its essence, its raison d’être. While this fact usually is forgotten in times when things go well, it becomes very clear as soon as a general and deep financial crisis occurs. In a sense these crisis can be understood as phenomena accompanying phases of rapid transition from one financial setting to the next, more progressive one. They also have been epiphenomena in times when global hegemony of a certain country was rather abruptly moving to another country: The Dutch Guilder lost power when Great Britain took over hegemony from the Netherlands, the British Pound Sterling suffered as the USA became the new hegemonic country. It is probably not too far-fetched to view the current financial crisis as a sign for the fading dominance of the USA in the world economy. The next dominant currency certainly will be even closer to a unified world money than its predecessors.

Enter the rise of transnational corporations. It is remarkable that (much like the renaming of production units as firms) the adjective ‘transnational’ reflects the borders of legal political units, more precisely the crossing of states’ borders. The driving processes for the growth of a firm can be divided into two groups: (1) The usual accumulation fueling activities, which in particular can take advantage of increasing returns, and (2) the stepwise arriving growth pushes that take place with mergers and acquisitions. The debate of classical political economy had dubbed these two processes accumulation and centralization of capital.

The first process, in particular the aspect that it is rooted in the possibility of increasing returns, which in turn imply that some form of imperfect competition emerging, has been the central topic of the most important contributions of Paul Krugman. As Krugman correctly asserts, the reason why these processes only in the last decades moved to the center of interest of economic theory lies in the fact that a formal analysis is exceedingly difficult and moreover usually can be carried out along several different, even contradictory lines. Nevertheless the theoretical exploration of these real developments now is on its way – algorithmic simulation modeling and agent based models playing an important role – and Krugman’s believe that even the traditional duo of constant returns and perfect competition can reveal a lot of economic insight is pushed in the background.

What has to be kept in mind, of course, is that not all parts of production fall prey to increasing returns of concentration processes in the same manner. The actually existing global firm structure therefore mirrors to a large extent the possibilities to implement a firm organization that is able to realize additional profit based on increasing returns of scale for a given type of commodity production. The limits to profitable expansion of firm size thus are very different (technology, transport cost, distance to the market, service sector linkages etc. play crucial roles) and small scaled firms in some fields of economic activity will always coexist with larger scale corporations in other fields. There are few assumptions more misleading than the traditional assumption of
economic theory: The representative firm and the representative consumer. They simply negate the central force of economic development of the last 200 years, namely the division of labor (enhancing labor productivity) and the evolution of need diversity (opening up of new utility dimensions).

If now a firm's growth hits and traverses the limits of national borders, then a transnational corporation is born. In the sequel the essentially new feature of the new constellation is that the agenda - the room to move - for the transnational corporation now is bigger than that of the single nation state! From that point on, the transnational corporation can use different national legislations and exchange rates between national currencies to maximize profits - instead of simply being subordinated to national state power. The somewhat surprising boom of profits in the last two decades can be attributed to a large extent to the fact that transnational corporations successfully applied these new instruments: Using advantageous exchange rates and tax havens, conquering profitable national industries by stipulating privatization in cooperation with collaborators in national governments (e.g. telecom and energy sector), and collecting financial resources from private households in OECD countries by a cleverly designed system of public funds intertwined with globally organized financial institutions. The fragility of the latter element - the fact that it was built on an artful construct of expectation processes of an audience, which to a large part had to be kept ill-informed or even uninformed - only became visible recently.

Any large-scale event in the global political economy in principle has the potential to trigger the second type of growth of transnational corporations: Mergers and acquisitions, centralization of capital. It is evident that such pushes only occur occasionally, thus the world economy typically has experienced waves of M&A. The current financial crisis, of course, will be a prime mover of this type of growth of transnational corporations.

Since transnational corporations do not have a democratically controlled counterpart of a global political entity, the need for a set of institutions paying that role is becoming visible - exactly via the international crisis of finance. Some forerunners of global government organizations, government in status nascendi so to say, already were installed after the last global catastrophe: World War 2. While the goals achieved by the United Nations, the World Bank, the IMF and the ILO (to name a few) have been rather limited, they nevertheless could - and should - serve as starting points for new attempts. Indeed the problem of governance of transnational corporations seems to be the next big step to take.

On the other hand (on a global scale) employment is to a large extent not provided by transnational corporations but by small and medium sized firms. In other words, the problem of providing full employment already is increasingly decoupled from the transnational corporations' profit motives - it currently mostly is a cause of national employment policy eating up national finance. As a consequence it is necessary task of future global governance too, not only to provide and to determine the action space of transnational companies, but also to coordinate the financial possibilities of national governments. Needless to say that such a difficult and controversial task will need a most sophisticated democratic feedback and control system, and that it will not be easy to implement it even if a satisfactory blueprint exists. But the plain truth is that there is no alternative to that difficult task - falling short of achieving it will lead to a falling apart of what has been already achieved, to local political barbarism, and another attempt at the same goal in fifty or hundred years.

It is useful to consider the current financial crisis as a window of opportunity for the implementation of the global financial underpinnings of such a desirable future development. Consider the following slightly adapted input-output table.
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### Table 1: Interdependent I-O Flows, source [Hanappi and Rengs, 2008]

Intermediary financial flows between countries, $\tilde{M}_{ij}$, are managed by an explicitly described global financial sector (row and column m). Needs and supplies of physical quantities are listed to the right — in the end it is the evolution of final demand and physical capabilities which are to be developed. On the lower left hand side the usual aggregates of global incomes policy are shown. Global governance in this setting means to collect, to document and to design the future development of all these flows. In the perspective of evolutionary political economy it has to provide guidelines, which guarantee the necessary stability based on which social innovations (mainly provided by global cities) and technological innovations (mainly provided by global firms) can be explored. So far the vision.

### IV. INTERDEPENDENCIES

Global cities and global firms are both phenomena of agglomeration. Cities always were geographical locations concentrating political intercourse and thus serving as a laboratory for progressive solutions to future more global problems. They still can and will fulfill this task so eminently important for social innovation. But there also will be no complete demise of the nation state, though its role has changed and will change further. While mega-cities will develop closer links to global governance, the nation state will also be supported and encompassed by the global support with respect to its infrastructural functions, in particular with respect to incomes policy and employment policy. Direct links from global government to global cities paralleled by direct links from global government to nation states might replace the current, sequential architecture (from global to national to cities). The three most important effects of this restructuring are:

1. The flexibility of city governments increases as they are free to install their own network of relationships — obstacles stemming from special interest groups in other parts of the nation state can be circumvented. This is particularly important if cities indeed manage to play their role as laboratories of social innovation.

2. The set of policy instruments of global governance is considerably increased, since it not only has access to national governments — and then simply has to trust the latter that it transmits policy goals to cities. It now can enter into direct communication, including, of course, direct feedback. This will be extremely important for global decisions as the share of population living in large cities will increase dramatically in the next decades.

3. The role of nation states will be redefined: They will now clearly have the responsibility of providing infrastructure — employment, transport, education, health, and the like — for the open land and the smaller towns embedding large cities. The balance between cities, national infrastructure, which is needed to meet globally determined goals, will include a rather sophisticated, institutionalized framework of financial flows between these three players. Nation states will mainly be administrative political units; the demise of their (feudal) role as militarily dominated area belonging to an autonomous ruler has been long overdue anyway. As a consequence one of the most important future tasks will be the design and execution of bureaucratic control: Whenever large amounts of money...
flows have to be administered, there always is the threat that those situated at the nodes of these financial nets will be tempted to misuse their administrative powers.

Recent decades already saw a shift from exploitation at the shop floor level towards exploitation via deteriorating exchange rates and misuse of special legal frameworks of certain nation states\textsuperscript{ix} – large corporations benefitted from these opportunities. In a sense economic power returned to its political dimension. On the other side the redistribution of tax revenues coming from transnational corporations and going as subsidies to SMEs to stabilize employment is a political intervention too, thus points in the same direction. Political economy in its classical meaning experiences a revival. What actually is needed is a conscious and democratically legitimated use of the potential of global political intervention.

Global firms with high labor productivity and outstanding technological innovation capacity need global governance and democratic control to direct their potential towards the needs of a global society. Once the global political economy has found and implemented a feasible form of democratic governance, these institutions will redefine what has to be understood as a global production unit. Global firms still will be rooted and will be represented in most global cities (like Coca Cola is already today) but they will be much more integrated in the overall political process.

ENDNOTES

\textsuperscript{i} One of the best developed extensions of standard economic analysis aiming to understand this dynamics is [Fujita and Thisse, 2002].
\textsuperscript{ii} See [Bosker et al., 2008] for a recent empirical study highlighting this process.
\textsuperscript{iii} Note that Paris, the archetypical center of a feudal empire, is not located at the seaside, since global sea transport to markets played a less important role.
\textsuperscript{iv} That the relationship between city size and the number of cities of a certain size follows a power law is usually called Zipf’s Law. Krugman provides a nice introduction, a description of Simon’s algorithm generating it, and an interesting critique of the latter [Krugman, 1996, p.39].
\textsuperscript{v} Compare [Friedman, 2005].
\textsuperscript{vi} As a typical contribution to central place theory compare [Christaller, 1933] or [Lösch, 1940].
\textsuperscript{vii} A formidable recent work demonstrating this was written by Angus Maddison [Maddison, 2007].
\textsuperscript{viii} In a recent study for the city of Vienna a simulation of possible trajectories and policy measures was carried out. Though it mainly aimed at understanding the consequences of an aging population it also showed the rapidly growing interdependence between all aspects of political and economic processes.
\textsuperscript{ix} In this context land is just a pre-form of capital.
\textsuperscript{x} Wealth as money in the hand of a firm becomes capital, i.e. a prescription, an abstract algorithm for accumulation (see [Hanappi and Rengs, 2008]).
\textsuperscript{xi} An interesting aspect is the fact that this shift seems to take place while overwhelming military superiority oft he USA is still in place. It seems to indicate that military power rather follows the power of political economy – and not vice versa. A fact that feudal rulers long ago had to learn the hard way when they tried to finance their soldiers with money from non-feudal merchants.
\textsuperscript{xii} See [Krugman, 1980, 1991], his explorations into spatial economics mentioned in the last part are in comparison very rare.
\textsuperscript{xiii} E.g. the strategic opportunities for price-setting behavior of firms calls for sophisticated game-theoretic models to be assumed to guide their actions - and therefore to be included in the economist’s model.
\textsuperscript{xiv} Other sources of the existing heterogeneity of the firm structure may be summarized in a periodically increasing influence of random processes. See [Taleb, 2004, 2007] for a discussion of this special role of probability.
\textsuperscript{xv} According to the study of [Brakman and Marrewijk, 2008] this influence together with technology played a dominating role in recent concentration processes.
\textsuperscript{xvi} Most observers now date the Minsky moment (compare [Hanappi and Rengs] of switching expectations to be the fall of Lehmann Brothers, when it was decided that there would be no bail-out.
\textsuperscript{xvii} The solution oft wo major global problems hinges on this issue: environmental feasibility for future generations and the fight against global income inequality.
The importance of visions for economic theory has been emphasized by Schumpeter, and unfortunately is not paid enough attention to. Deep crisis, of course, usually leads to a renaissance of this concept.

There is a wide range of possibilities from tax havens via poor national labor protection laws to missing environmental protection, etc.

REFERENCES


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