

Introducing *Metronomics*: The New City-centric Economics Of The Global Era. Concepts, Hypotheses, Research Challenges.

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The world economy is in constant change and economics used to deal with that. Until now. After more than a decade of the 21st century's, there is little evidence to support any faith in the powers of economics. Experience economy has been proclaimed. Creative economy has been proclaimed. Knowledge economy has been proclaimed. The major debate remained in the same old rails: to what extent should state intervene in the free market economics to fix the problems. There is also a notable polarization of views among economists: while some are close to the free market camp, and other support more proactive role of the state – most of them would agree this is what matters: the market-state relation. The fiscal policy. The monetary policy. The public investment policy. Keynes is dead and so is Milton Friedman but most of the economic narrative still echoes the same old dialectics.

The major problem with it is that while both camps have vital arguments, none of them delivers. And I do not mean here delivering perfect policy solutions – the contemporary economics fails even to explain what is happening in the global economy and why is it so.

One of the most visible signs of such failure is the *disparity* issue. The war on disparities has been proclaimed by just about every national government and international organization dedicated to economic development. In some cases, like the European Union, it became the top priority of policymaking and the major objective of massive public investment. Other governments, like the U.S. took more balanced stand. Some other governments, like Russia's, did nothing at all.

In each and every case disparity continued to grow. The differences in GDP per capita between countries of the European Union theoretically slightly shrunk. At the same time, differences between cities within the countries grew. And – the differences *within* cities grew. Which makes other disparities irrelevant.

The common wisdom has it that disparities are characteristic to the Third World countries, while the developed world of Western Europe and North America is decently leveled out. Looking at the OECD regional data leads to the purely opposite conclusion. For instance: Poland is on average poorer AND has smaller regional GDP disparities than Italy, Italy than Germany, and Germany than the U.S. The rich countries in general feature very high regional disparities (OECD, 2014).

This observation alone brings a disturbing doubt: if the well-off national economies have more disparity than those not-so-well-off and the difference grows, then maybe the entire economic war on disparity was wrong? Can regional disparities be actually *good* for overall performance of national economies?

In this paper, I do not answer this question. I dismantle its very sense. The disparities between cities *within* one national economy are greater than *between* various national economies. This alone shows the spatial focus of economics should be reorganized yet my claims go much further. *There ain't such thing as overall performance of a national economy.* National economy is a myth.

Economics we've known to date can't explain disparities of wealth because its models of both producer and consumer are based on foundations that are no longer valid. To be specific – in fact some of those are still valid but their relevance shrunk rapidly in the past two decades so they describe the world mostly gone by now.

This applies also to the very core foundation of economics: the world of 21st century is no more about scarcity of goods and infinite needs. Therefore, the very efforts to fix 'economics' and save the very term appear highly questionable.

The paper is organized into numbered thesis grouped into sections that reflect:

- A. failed concepts of economics,
- B. alternative concepts, explanations and hypotheses,
- C. future research challenges.

A. ABANDONING ECONOMICS: FAILED CONCEPTS AND HYPOTHESES

A1. Location-blind approach to producer.

There is no business location factor in producer models offered by mainstream economics. In other words, it is assumed that the production process variables are capital, labor and technology but their nature is extraterritorial. Given the same three variables – it should be the same in, say, Novosibirsk, Utrecht and New York City or in other words – such business could be placed anywhere. In practice though, there is a strong pattern of business producer location that shows stratification of business types and processes along the hierarchy that makes shifting between settlements strata virtually impossible. Advanced Producer Service provider can move their office from Sao Paulo to New York much easier than from Sao Paulo to a little town in the Sertao even if by some magic coincidence the typical production function variables set (capital, labor, technology) was exactly the same. Ignoring location factor, defined as a variable related to the level of settlements (towns, cities, global cities of varied strata) and their network-organized relations to other settlements proves fatal error of economics. It is so because labor, capital and technology productivity vary greatly from one location to another and so does replaceability of each and every of those factors.

A2. Value-type-blind approach to consumer

Consumer model in most economic theories typically discriminates the types of products meaning goods or services with further subdivisions within those groups. There is no distinction on the ground of intellectual property intensity as far as the demand is concerned and the rule of diminishing marginal utility is applied evenly. In

fact, this rule does not seem to describe the products of high intellectual property accountable value consumers who in turn make minority or majority of the demand in cities depending on their positions in the hierarchical world city network. People do not usually use more than 2-3 cars but they do use and enjoy countless web or mobile applications and do not seem to lose their appetite as they consume more.

A3. Cost-dependant self-regulation of the market

Both the business location decision patterns among European companies from city to city and the world's cross border investments speak clearly against the applicability of any cost-related rules to explain the spatial business dispersion. Even if the business managers claim they go by costs, in fact they don't. In ECM, London tops the continent and no price hikes seem to matter here nor business incentives from the city of Berlin do (Cushman & Wakefield ECM 2010). In FDI's, the U.S. continues to sweep majority of world's capital which is inexplicable by cost factors either.

A4. Labor market model

On basis of the mainstream economic theory, two labor markets of the same size and macroeconomic characteristics (costs, salaries, taxation, interest rates) should deliver about the same quality of staff, apart from special cases of geographically-specific niches. This does not seem to happen. Cities of the same national characteristics feature tremendous differences in talent pool and even for very narrowly comparable positions at the same salary there are differences in basic psychometrically measured competencies between locations.

A5. Role of the brand

The impact of brand in microeconomics is conceived as a vector moving demand curve to the right. It is assumed that the product can perform without any brand capitalizing predominantly on its core functionalities. The brand is deemed an auxiliary demand-driving mechanism. In present day economy, the vast majority of products base their value proposal on brand image and brand-communicated benefits through which the very function is perceived and valued. This means dramatic underestimation of the brand impact upon choices. In addition to this, no microeconomic model for cities treated as rivaling functionalities (i.e. for living or investment) to be chosen by sovereign buyer exists as cities always convey very strong brand impact practically inextricably interlinked with their 'real' functionalities whether they want it or not.

A6. Scarcity of resources

There is at least a significant number of product groups in the present day economy for which there is no scarcity of resources. With global supply chains and suppliers more and more mobile, the issue of resources scarcity is generally diminishing, while in several fields it is already practically of no relevance. This corresponds with the sharp increase in intellectual property intensive products that base on resources practically unlimited.

A7. Infinity of needs

Many things can be said about the humans of 21st century but hunger and insatiable demand is hardly among the top characteristics especially with regard to physical products that theoretically could face raw materials shortage issues. Contrary to the concept-intense products of the experience economy, the physical products meant to meet the regular needs are delivered over and above the needs of the majority of human kind today. There are very few geographical markets where needs are still vastly unmet while in most relevant world markets, the quest for inspiring new needs accelerates. We have fewer needs than we can meet.

B. TOWARD METRONOMICS: NEW CONCEPTS & HYPOTHESES

B 01. There are five crucial changes that coincided in the first decade of the 21st century and brought us not only into a new economic situation but rather into a situation calling for *new economics*: 1) the world turning urban for the first time ever, 2) creative economy and start-up nation revolution, 3) digitalization of production and consumption, 4) globalization and erosion of mobility barriers, 5) the rise of place branding.

B 02. There are two major dynamics: cities and states. Interconnected. States depend more on cities than the other way round. States-oriented economy shrinks; city-centric economy is already dominant and is rising still. Banking and finances became transnational and global-city oriented as documented by Sassen (Sassen, 1991 and later editions). But the global cities of now are not only London, Tokyo and New York. Even the smallest businesses tend to go global and there are at least 500 world cities with signs of globalization well formed and about 2000 cities with global appetite and potential. The world has become more Sassenian than what even Sassen had predicted.

B 03. Wealth generation does not depend on fiscal policy, monetary policy or public investment in culture education or other arenas.

B 04. Wealth generation depends on cities, e.g. on number of global metropolises, their aggregated connectivity, their networkness between themselves, connections with other global nodes as well as their interconnection with their hinterlands. The city economics is not special case of general economics. General economics is an old special case of the predominant new city-centric economics or 'metronomics'.

B 05. The resources in metronomics are not scarce. The user attention is what is scarce. Some types of needs are scarce. Certain crucial market information is scarce.

B 06. The value generation method of economy according to economics is *addition* (value added) while in metronomics it is *multiplication*. It is because of the zero-cost scalability of non-tangible products (affecting volume increase and distribution)

B 07. Contrary to David Ricardo's wine and cloth case that formed the basics of economics, in case of the products predominantly non-tangible, like codes, technologies, digital and most creative contents, selling the product means that the seller still has it. The exchanger wins, not – the armed robbers who merely extend their possession (guardian syndrome, Taylor, 2007) or the comparatively cheaper producer.

B 08. The 'exchanger wins' paradigm inevitably leads to network structure. It is the utmost realization of the *cityness* phenomenon as opposed to the guardian syndrome as in Taylor (Taylor, 2011).

B 09. The resources and competencies are not distributed and allocated as predicted by mainstream economics: companies do not follow cost vectors; labor does not follow salary-related vectors.

B 10. The decision makers are not fully aware of their real motives as the economic theory created its own narrative people tend to subscribe to regardless from the real life. This makes any other research than direct measurement useless.

B 11. The real processes in global economy of cities follow the pattern based on multifactor analysis of which potential and brand goes over and above costs. Again, Ricardo's cloth and wine classic example does not work and Krugman's amendment focused on trade costs still does not explain exchange patterns between the cities in the global economy.

B 12. The value of companies is not revenue-related anymore. Analysis of tech startup valuation at early stage shows that other metrics became the equivalent of revenues. In short: *Bitcoin is a dollar. User is a dollar. Data is new oil.*

B 13. Although the global city-centric economy is potentially fairer and more efficient than old state-focused economy, the present world city network is not free from flaws such as exclusions.

B 14. There are two types of new exclusions: due to lack of information (source-based) and due to overload of information (brand-based) In practice they coincide.

B 15. Brand-based exclusion is very specific: in metronomics, unlike economics, the needs and the attention span are scarce and the communication space is overcrowded. Due to the overstimulation by rapidly increasing number of new brands introduced at unprecedented speed (Winkler, 1996), the decision makers tend to stick to big brands in their choices. Such a brand-based irrational behavior affects both individuals and institutions. We see it in business location patterns: some cities are overrepresented while many are excluded and no economic argument explains it.

B 16. Source-based exclusion means that even the decision makers willing to go beyond brand-based bias do not have sufficient data to analyze suppliers alternative to the branded ones in one comparative space so eventually they quit.

B 17. The underlying reason of both new types of exclusions is time constraint and as such it is immanent and unfixable in 21st century's reality. However, the triggering factors for both new exclusions are not immanent to the world city network. They are rather the network's distortions such as: information asymmetry, process bottlenecks through national structures, the accumulating institutional bias due to oligopoly of big consultancies.

B.18 The new exclusions are inexplicable by economics and as such – unfixable. In metronomics, the flaws of world city network can be fixed but the fixing requires: direct measurement, new knowledge and technological intervention.

B 19. A measurement of any other economic entity than city is indirect. It is so because: cities are the most important arena of B2B and B2C interactions and because cities are the most important economic players themselves. Eventually, all resources and processes flow between cities, not - countries and not – companies.

B 21. Fairness must pay off to prevail over the long term. In economics, being unfair still pays off if the parties mistreated are way smaller than those co-operated with and cut off from the major market decision makers. In metronomics, due to the global dispersion of partners, flat network structure and instant, perfect information, being unfair significantly reduces chances of sustained network exchange. Which is not a problem in state-focused guardian-syndrome old world but it is a big problem for a network-based mechanism of value creation. Thus, metronomics while still flawed, tends to be closer to self-regulation than economics.

B 22. The reason why cities have organized themselves in network turned drastically more important now than ever is a consequence of shift from material economy to non-tangible economy based on concepts, technology and creativity. In such a system – the nodes win as they retain all the exchanged knowledge and accumulate the value.

B 23. The only way to replace the non-working economic theory with a well structured framework of metronomics or new city-centric economics of the global era is to gauge and monitor directly the blood stream: the flows of people, capital and information between the cities of the world. This requires a brand new research vehicle of global scale.

C. RESEARCH CHALLENGES – THE CITYGLOBE PROJECT

C 01. As stated in part B. of this article, I claim that the research that can help establish new knowledge needed to form the framework of new city-centric economics or metronomics must be direct (B19) and that ‘direct’ means focus on city-to-city flows. As the first step in this direction I have designed the research project called CITYGLOBE, hereinafter referred to as Project. It is the first research vehicle designed within the city-centric network paradigm of metronomics.

C 02. It is widely known that cities are the main driver of wealth generation, which has been documented by over two decades of the world city network research (Friedmann, 1986; Sassen, 1991; Taylor, 2004, 2011; Glaeser 2012), no quantitative analysis mapping the inter-city direct flows (investment and people) has been produced to date. In this regard the Project is State-Of-The-Art as such.

C 03. In the literature documenting contemporary research on the world city network, there is a variety of approaches to consider. The first and the most important approach coined *GaWC connectivity* is represented by the unquestionable scientific leader in the field PJ Taylor of the Globalization and World Cities international research network (Taylor 1995, 2004, 2011). It uses a selection of corporate networks of international companies as a proxy of the general world city network activity.

C 04. The other approaches to the empirical representation of world city network activity are based on location pattern of varied industries or disciplines: architecture (Faulconbridge, 2009), IT (Gorzalak, Smetkowski, 2005), creativity (Florida, 2002), branding (Anholt, 2005) or scientific co-authorship locations (Matthiessen, 2006). While certainly enriching the knowledge on world cities, all of these specific approach suffer from the same: they demonstrate what IS in which places and not what FLOWS between them.

C 05. It appears that the network not only fails to produce the global socioeconomic optimum but also – is unable to fix itself and tends to grow more and more hierarchical with the NYC-London axis safeguarding its dominance and certain European and southern hemisphere cities falling out of it. At the same time, strong criticism of concept of ‘globalism’ in parts (Duarte, Ultramari, 2009; Robinson, 2004) refers also to the economic exchange within the world city network in Taylolean sense (interlocking world cities model, Taylor 2004). The main line of attack here is that some cities already benefit the most of the global exchange and their dominance appears to grow while many parts of the world city network seem forgotten and unreasonably underconnected despite more than sufficient economic potentials (Musil, 2013)

C 06. No study to date focused on measuring what exactly flows between those cities, which cities exactly and how intensely. Without such a map of real flows, it was impossible to tell whether the flows reflect the potential of cities and whether or not the benefits are proportionate to engagement of resources. In other words,

we know the world city network exists, we know it is critically important but we don't know how exactly it works, if it is efficient and if it is just and we suspect it isn't.

C 07. To the contrary of the radical globalization critics, I consider these undeniable problems to be a distortion on the otherwise valuable mechanism of the world city network. It is believed the unbalanced and gap-deepening hierarchical tendencies of the world city network are caused by certain errors such as: information asymmetry, bottlenecks in city internationalization, third parties business policy interference. These problems will be thoroughly explored at the very core of the cities and diagnosed based on the direct interviews with the city governments and generalized to the form enabling global improvements of the entire network.

C 08. The novel concept here is to use city governments as multidisciplinary data sources and active players of the city communities at the same time and to apply internet and social network based vehicle for structured interactive interviews going on for at least 12 months. It may seem very ambitious to directly interview 500 world cities which can explain why no one has done it so far although the questions on network benefits and general wealth of cities were present in the literature (Liu, Derudder, Liu, 2011).

C. 09. So far the world city network was measured indirectly through the corporate network structure. It is valuable but the real network is not made by the structure of global companies but by the flows of processes, resources and products between cities. The Project focuses on the very processes that circle between the cities instead of the secondary trace these flows leave in the corporate networks.

C 10. Companies can provide information about the companies while the very subject of the research are cities. No specific type of organizations whether commercial or NGO, scientific, etc. can rival the city hall regarding complexity of the data available.

C 11. City communities are represented by city halls. City halls are the ultimate party held responsible for stewardship of the local economic development. At the same time they are partners of the global economic exchange. They are to be researched to determine the core mechanisms of the phenomenon they are crucial to.

C 12. The main assumption of the Project is that the world city network features several imperfections. It's cities that face these imperfections at fullest, so city governments will know best the problems they have with building international links even if they can't explain the causal mechanisms. The Project is set exactly to assist in the latter, while the cities appear the optimal data source to manage the former

C 13. City governments to the extent important for the Project are comparable organisms worldwide. They all serve the good of the community and they all seek to attract capital, people and ideas. They are also collecting the data demonstrating city development across the sectors, industries and arenas.

C 14. The number and the selection of sample (526 world cities as ultimate goal, about 200 by the end of 2014) are directly based on the last spectacular world city network analysis available (Global Urban Analysis 2010). The choice of particular cities reflects the most important cities of the vast majority of countries in the world.

C 15. The Cityglobe Research Project will also verify if the vectors go along the economic potential and market dynamics or they are distorted by extra factors (Van Nuffel, 2010) such as global company policies, information asymmetry, prejudice etc. Ultimately, the research will help answer the question if the disparity in the world is neutralized or further deepened by the world city network process flows, if it can be helped and what flows could be most beneficial if diverted along the lines of economic potential. The Project is hoped to show the dangers and mechanisms of global city exclusions but form the basis for systematic remedy of these processes instead of abandoning them.

The Project is also State-Of-The-Art in the sense of triple direct approach to both research and industry exposure of the results as demonstrated by: 1) using direct quantitative data of the inter-city flows, 2) direct qualitative identification of network imperfections by the city hall and companies, and 3) direct delivery of the new knowledge and proposed solutions to the parties involved (city communities).

In other words, through the Project proposing a novel look on the world city network through the eyes of city governments and direct inter-city flow matrix, global economy may gradually experience new dynamics because of the unleashed potential of the world city exchange strengthened by a more deliberate application of the city-to-city economics, that was aimed by other studies (Pamreiter, 2011a) but never fully achieved. It is meant to set to produce the core new knowledge within the paradigm of metronomics.

Most economic theoretical frameworks still subscribe to the illusion of state-related model of the world and a 'general' economy of which 'city' is just a specific case. In this Project, it is claimed exactly the other way round. Metronomics means the 'city' is primary and critical to both economy and economics while everything *but* the city is a specific case. It also implies networkness as city itself is a product of a network.

Special emphasis is placed on the biofeedback between the creative economy and the value creation in the world city network as the key mechanism that made traditional economics almost irrelevant now. It does not work. What happens in cities and because of cities is tangible and primary. What happens in national economies is just an approximation of cities' impact on space determined by artificial borders.

Metronomics is no longer an option. It is a necessity.

In Cities We Trust.

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