



EVROPSKÁ UNIE  
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MINISTERSTVO ŠKOLSTVÍ,  
MLÁDEŽE A TĚLOVÝCHOVY

## 5RE254 Regional economics

### Handouts k přednášce na téma:

**„Neo-classical and keynesian approaches to regional development. Theories of regional development inspired by neo-classical economics. Theories of regional development inspired by keynesian economics“**

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Literature: The text below is mainly based on titles Blažek, J. – Uhlíř, D. (2011). *Teorie regionálního rozvoje: Nástin, kritika, implikace*. Karolinum, Praha and Blažek, J. – Uhlíř, D. (2002). *Teorie regionálního rozvoje: nástin, kritika, klasifikace*

### Sn. č. 1: Neoclassical Economics - Assumptions

Microeconomic basis – individuals' (human or enterprise) behaviour

Mathematization of economics (symbols, variables, exact definitions)

Rationality (homo economicus)

Perfect mobility of factors of production

Perfect competition, perfect information

Population size and technology are constant and exogenous (supply limited models)

Methodological individualism

### Sn. č. 2: Neo-classical approach to regional issues

- ❖ L. Walras and A. Marshall
- ❖ Simplification of reality (perfect competition etc.)
- ❖ Total production depends on the supply (amount) of sources
- ❖ Allocation efficiency can be achieved only by the market principles
- ❖ Economies of scale
- ❖ State control is denied
- ❖ Regions of the world converge
- ❖ **Regional convergence** is a normal process => theories of regional development inspired by neoclassical assumptions are **theories of „regional convergence“**

### Sn. č. 3: External and Internal Economies of Scale (A. Marshall)

- ❖ **Internal economies (increasing returns and diminishing returns)**

- ❖ Increasing returns are a more common occurrence as they are achieved with increasing production of a particular product which leads to decrease in fixed costs.
- ❖ If, due to the production of a product (specialization), production costs of another product is decreased, diminishing returns are achieved
- ❖ **External economies (financial or educational returns or agglomeration returns)**
  - ❖ depend on external environment of a company, particularly on other economic subjects or public resources
  - ❖ *agglomeration returns* are based on the idea that the existence of high concentration of industry, industrial counties or agglomeration economies or clusters, have a significant effect on the economy. – *due to specialized services, skilled labour, new technologies, knowledge spillovers and local supplier linkages*
  - ❖ The opposite case is *diseconomies of agglomeration* (disadvantages) - *this danger is present mainly in urbanized areas and pertains to urban returns. Additional costs may emerge in transportation (traffic jams slow down deliveries and it may be difficult to implement just-in-time concept which is the acquisition of delivery of material at an exact time, place and amount needed), location (extreme increase in prices of real estate), the environment (environment pollution) and directly in a society (polluted environment means higher sickness rate and it decreases the motivation of workers both of which lead to lower productivity).*

#### Sn. č. 4: Localization theories

- ❖ The oldest part of regional theories (predecessors of RT)
- ❖ Rely on neo-classical basics of economics, particularly the assumptions of perfect competition and the absence of barriers in the space
- ❖ *„every location has certain resources at its disposal and every socio-economic activity has its requirements „ - to find factors influencing space distribution of economies*
- ❖ Very simplified models – not reflecting reality
- ❖ Contributed to the development of theories of regional development - the study of agglomeration and the creation of location factors concept
- ❖ The Von Thünen model of agricultural land use, Central Place theory
  - *Notes: the actors always search for an optimum location with optimum resources for their activities.*
  - *An important element which affects location of specific activities is time as both resources and needs change in time (e.g. resources depletion).*
  - *Changes in time then lead to a new search for an optimum location (relocation).*
  - *Location decision of companies is only one of the elements the entrepreneurial strategy and it may not be evaluated independently of the complete decision-making strategy of a business unit. In addition, the very space is significantly modified by its own dynamics - it is not static and it is affected by its surroundings and cannot be geometrically divided.*

- Finally, an important factor is the unpredictability of the actors in an area who do not act according to a script (the fail to behave rationally).

### Sn. č. 5: The Von Thünen model of agriculture land (19th century)

- ❖ Model of crops distribution
- ❖ Importance of **transportation costs**
- ❖ The function of **locational rent** – potential profit of the producer

*Notes: Johann Heinrich von Thünen's (1783-1850) model of agricultural land from the first half of the 19th century is considered the first ever location model.*

- Von Thünen observed the distribution of various agricultural activities in space and, using the general assumptions of perfect competition, formulated the model of crops distribution.
- Von Thünen was convinced that the agricultural market (moving always towards only one center) has a limited reach, dependent on the distance from the source - i.e. transportation costs.
- He observed that particular activities were focused in certain zones around the center - ideally, this would then lead to a system of concentric rings with every ring specializing in different agricultural activities (see fig) based on transportation costs, weight and perishability.
- These assumptions lead Von Thünen to conclude that the cultivation of a crop is only worthwhile within certain distances from the city (transportation costs would be higher than sales price).
- Von Thünen also advances the function of locational rent - potential profit of the producer in certain conditions. A product (service) will be produced at a specific location where the locational rent is the highest (for further details agricultural see Ježek, 2002).
- Other aspects of location are the product's perishability and its weight (see Ivanička, 1987).
- In spite of many simplification this model has proved that production is the function of distance from the market.

### Sn. č. 6: Central Place theory (Walter Christaller – 1933)

- ❖ To explain the location and size of settlements in an urban system while assuming rational consumer and seller behavior and homogeneous surface
- ❖ The result of Christaller's work is the conclusion that with the neoclassical assumptions of perfect mobility, etc. the optimal solution is *hexagonal lattice* where the hexagons neighbor one another and localized centers are in their middles
- ❖ Focusing services in the centers generates a *hierarchy of central places* (the higher the order of the services provided the higher order the center occupies in the hierarchy)
- ❖ Very inspirational theory – many followers
- ❖ Used in practice (Germany, Netherlands, Israel, Czechoslovakia)

*Notes: This attempt at explaining the spatial economy as a whole is considered the highlight of all location theories.*

- *His theory was based on the analysis of retail and services network in the south of Germany - this was where his assumption of homogeneous surface came from.*
- *Christaller made an unambiguous generalization about space - the larger the settlements are in size, the fewer in number they will be.*
- *Hexagons were selected as they ideally divide space - in experiments with circles there were problematic areas created by areas not covered by circles or by overlapping circles (see fig below).*
- *In the former case there were areas which were not serviced, in the latter there were overlaps on the serviced areas.*
- *Hexagonal lattice reflects two basic concepts of the theory: the minimum market - threshold and maximum distance - range.*
- *The minimum market is the lower limit of spatial expansion of a particular service. The upper limit is then the maximum distance from the center (from the service provided) which consumers are prepared to travel to acquire service.*
- *The space determined by the upper limit is a sphere of influence (see fig). The size of the centers affects the type of service which the center provides.*
- *Christaller was working with the assumption (too simplified to be used for reality) that higher order centers provide all functions (services) of lower order centers .*

#### **Sn. č. 7: One-sector neo-classical model**

- ❖ The oldest and simplest attempt to explain regional growth
- ❖ Cobb-Douglas production function  $Y = F(K,L) \cdot t$
- ❖ Technological progress is exogenous
- ❖ The mobility of capital and labour is countervailing =>

#### Convergence of regions

- ❖ 2 causes of inter-regional disparities in production volume:
  - ❖ Different speed of capital growth, labour force and technological progress
  - ❖ Different function  $f$  – different relation between increase in production and increase in

Labour supply caused by an increase in capital volume

*Notes: Factors of production will go to those where we can expect the highest profit (highest wages and highest gains from capital)*

- *Capital and labor flow the opposite direction – dataset from USA (1919-1957) did not confirm it*

#### **Sn. č. 8: Two-sector neo-classical model**

- ❖ Existence of more sectors in a region and existence of mutual trade (comparative advantage) but still very simplified model (perfect awareness of subjects, perfect mobility of production aspects and perfect flexibility of prices)

❖ Model moves towards the equilibrium but in a very long time accompanied by structural changes

#### **Sn. č. 9: Growth accounting**

- ❖ development of *econometrics* (application of mathematics, statistical methods and computer science to economic data)
- ❖ emphasis on statistical methods, modeling and an extensive use of quantified data (quantitative revolution)
- ❖ the difference in the growth between the regions (countries) is caused mainly by *the change in labor productivity*
- ❖ Technology is the key success (Technology covers also knowledge, human capital, etc.)

#### **Sn. č. 10: New economic geography (P. Krugman, M. Fujita, A. Venables)**

- ❖ Develops some old neo-classical regional models using less simplifications (non-perfect competition, internal and external savings)
- ❖ Uses complicated mathematical models
- ❖ It also emphasizes the influence of historical development and feedback of technological advancement on economic growth and regional development
- ❖ Main objective - to find out the extent of market structures and technological conditions as agglomeration mechanisms
- ❖ Krugman – some countries are leaders in production and export in certain industries for a long-term => long-term region specialization
- ❖ Existence of multiple equilibrium – depends on historical development (determination, causality and fatalismus)

*Notes: Population, economic activities into cities, industrial zones and production districts – why?*

- *Krugman tvrdí, že je možné i změnit cestu, ale nevysvětluje proč – existence of randomness, intangible factors*

#### **Sn. č. 11: New growth theory (R. Romer, B. Arthur)**

- ❖ „New theory of endogenous growth“
- ❖ Factors of growths – human capital, knowledge, technologies, innovations
- ❖ Causes of regional disparities – difference in the quality of human resources, different level of technologies => each region has different equilibrium

- ❖ Support of science, innovation in the whole economy
- ❖ Regions with similar conditions create convergence clubs which, theoretically, aim to the same equilibrium (conditional beta-convergence). As the conditions (parameters) within a country are more alike the effort for convergence is higher at interregional rather than international level (Blažek, Uhlíř, 2002) – case of the EU countries

#### **Sn. č. 12: Path dependance model (P. David)**

- ❖ Not a real economic theory but rather a separated model (idea) – also used by New Economic Geography
- ❖ Based on the idea that coincidental phenomena and events may have a long-term cumulative effect on the organization of space (or activities) and the success of regions
- ❖ The influence of particular occational events on the decision-making and behavior of individuals.
- ❖ It is necessary to study historical processes to understand further development of events.
- ❖ „lock-in“ effect

*Notes: - The case of QWERTY – lock in; strong dependence on previous historical development*

#### **Sn. č. 13: Regional policy inspired by neoclassical and neo-liberal approaches**

- ❖ 1920s – 1930s (UK - an „experimental laboratory“ of economic theory and economic and regional policies)
- ❖ End of neoclassical regional policies – WWII
- ❖ Cause of high unemployment – low mobility of labour (labour stays fixed to a place) compare to high mobility of capital => workers need to move for work even from larger distances => „workers for work“
- ❖ Support for commuters
- ❖ Financial incentives for migrants
- ❖ Accomodation arrangements
- ❖ Retraining schemes etc.

#### **Sn. č. 14: Neo-classical RP – success and failures**

- ❖ Passive help to weak and problem regions
- ❖ Selectivity of migration – impact on emigration regions
- ❖ Efficient when regions with different demand for labour exist
- ❖ Social and cultural aspects of migration
- ❖ RP from neoclassical perspective is more less dissaproved (exceptions – support of SME, deregulation measures, consultation services)
- ❖ Advantages for companies located into enteprise zones (use of brownfields)

*Notes: SME – often source of innovations, flexible, potential for growth, but not for systematic research – in hands of large companies,*

- *SME are flexible but also vulnerable; deregulation – podnikatelské zony, ekonomické a bezcelní zony*

### **Sn. č. 15: Neoclassical approach to the differences in regional economic potential - videa**

[https://www.youtube.com/watch?v=b5zp\\_EJ4LY4](https://www.youtube.com/watch?v=b5zp_EJ4LY4)

[https://www.youtube.com/watch?v=Xt\\_L8WFKvLc](https://www.youtube.com/watch?v=Xt_L8WFKvLc)

### **Sn. č. 16: Keynesian Economics**

#### **- assumptions**

No selfregulation capability of economy

The cause of disequilibrium – difference between savings and investments (Keynes)

Analyses of macroeconomic quantities – rate of unemployment, interest rates, production, aggregate demand

High level of uncertainty

Inflexibility of prices and wages

Distaste to mathematization

*Notes: Less general than NC; it doesnt expect universal models, short term orientation, focus on psychology of actors, the effect of collective negotiations.*

### **Sn. č. 17: Keynesian approach to regional issues**

- ❖ The crisis was caused by isolated decision about savings and investments => imbalance
- ❖ Investments from public sector should compensate investments from private sector (to secure proper total volume)
- ❖ Low consumption of investments (demand) will lead to unemployment and recession

Therefore: => state control and interventions are needed

=> regions in the world **diverge**

- ❖ **Regional divergence** is a normal process => theories of regional development inspired by Keynesian assumptions are **theories of „regional divergence“**

### **Sn. č. 18: Export base theory**

#### **(D. C. North – 1950s)**

- ❖ Employment in: - basic (export) – doesn't have to be industrial product, but also agriculture or service
  - complementary (service) industries

- ❖ Success of the region lies in the development of export sectors which have the role of a multiplier (very stimulating field), and other fields in the region are more or less subject to the export field and to secure its activities
- ❖ Economy's development is determined by the success of its export sector – region has to find (produce) its successful export product/service
- ❖ Demand for products is exogenous
- ❖ Importance of external support and agglomeration advantages
- ❖ Theory based on the empirical evidence from the USA from 19th century
- ❖ No direct implications for regional policies
- ❖ No considerations of trade barriers or currency exchange rate

*Notes: Kritika – export není vše, podcenění oblužného sektoru, záleží také na velikosti ekonomiky; North's theory was criticized as this theory is based on the analysis of the development in the USA and new settlements - e.g. Australia, Canada and New Zealand*

- *North advanced that export plays a key role for the development of a region which states that the larger the region is the more likely it is that the key resources for its development are within its borders - this was also criticized as the development of Europe was not significantly affected by export*

#### **Sn. č. 19: Harrod-Domar growth model (1940s)**

- ❖ Significant divergence tendencies (any deviation from equilibrium causes even bigger disbalance)
- ❖ Domar (1957) – two effects of investments (income effect and capacity effect)
- ❖ Harrod (1948) – four types of rate of growth (natural, guaranteed, anticipated, realized)
- ❖ Pesimistic model – disparities among region will deepen
- ❖ Investments into low-developed regions

*Notes: Effects need to be balanced, but it can be ensured. Natural and guaranteed rate of growth need be equal as well as anticipated.*

#### **Sn. č. 20: Growth poles theory (F. Perroux, J. Boudeville – 1950s)**

„It is a blunt and indisputable fact that *growth is not uniform in different places* but growth has different degrees of intensity in different points, or poles, and then it spreads via channels and its final result for the state economy is different in different regions,, (Perroux)

- ❖ the economic development of a regions depends on the intensity of the **propulsive** industries and their interconnection with the **propelled** industries
- ❖ Role of innovations
- ❖ polarization of space – **dominant** and **dominated** regions
- ❖ 4 types of polarization – technological, income, psychological, geographical
- ❖ J. Boudeville - *principal cities systém (growth centers and growth axes*



Notes:

- *According to growth poles theory the propulsive pole is a business unit (a company, industry) or a set of these units and these units are the main force of the economic development as they generate growth through the impact of strong input-output linkages*
- *All other industries, which lack the strong character, are called propelled.*
- *Perroux also identified the terms dominant region which is the region where poles of development are concentrated, and dominated region which is a region where side poles are concentrated and which develop economic activities affected by the demand from dominant region where labor comes from.*
- *This theory reached the height of its popularity in the 1950s and 1960s as it was used in regional politics of many countries (e.g. France and Italy). The propulsive industries included automotive industry, steel and chemistry with the location of new manufacturing facilities being directed to the developing regions (e.g. the south of Italy) to start the development of these problematic regions*
- *Regional implications of the growth poles theory was proposed by a French economist Jacques Boudeville (born 1919) who called his modified theory the theory of growth centers and growth axis*
- *Boudeville's concept of principal cities system was utilized in practice, for instance, in the spatial planning of France with the following result.*

**Sn. č. 21: Theory of cumulative causation  
(G. Myrdal – 1950s)**

- ❖ *emphasis on social disparities – strong impact on regional development*
- ❖ *a change does not create opposite reaction but other changes which emphasize it*

**Hypotheses:**

- *there is a small group of wealthy countries and many more extremely poor countries,*
- *wealthy countries continue to grow while poor states stagnate (here Myrdal notices the paradoxical fact that the stagnating countries are termed developing countries - the countries which are developing),*
- *from a global point of view the differences between the rich and the poor are growing larger.*
  - ❖ *market forces lead to deepening of interregional differences*
  - ❖ *negative (polarized or back-wash effects) and positive effects (spread or trickle-down effects)*
  - ❖ *international trade as the main mechanism which causes market forces to increase inequalities between developed and underdeveloped countries*

Notes:

- *In developed countries the positive effects on less developed regions is more significant than in developing countries due to the system of parliamentary democracy, stable and integrating institutional framework and a conscious effort of the state to decrease the differences between the rich and the poor in accordance to the concept of welfare state*

- *The main tool to improve underdeveloped region is, according to Myrdal, an integrated development plan which allows the implementation of investments which are beneficial for the whole society, they are non-profit, but they allow the achieve external economies of scale to other subjects and thus initialize growth in regions*
- *Myrdal's theory received different evaluations - application of some of the components of this theory aided in some countries to a significant improvement in lifestyle (e.g. Sweden after WWII) but, on the other hand, this theory also led to the expansion of public sector, increased taxation and the loss of competitiveness. Therefore, in the 1990s many authors talked about the crises of "Scandinavian model"*

### **Sn. č. 22: Theory of unequal development (A. Hirschman - 1958)**

- ❖ *Aim of economic policy - to find hidden or ill-used resources as well as mechanisms to utilize them*
- ❖ *Key to success - generating and directing of people's effort in a desirable direction*
- ❖ *binding agent – catalyst of economic growth => people's effort*
- ❖ *not lack of capital, but lack of know-how is the problem*
- ❖ *Inequalities and disequilibrium are normal – keep the economy active*
- ❖ *positive expectations - "there is nothing more successful than success,,*
- ❖ *Threat for underdeveloped regions – selective migration*

#### **Notes:**

- *The emphasis on superiority of people from successful regions over other regions has a cumulative effect as the successful will emphasize their merit, abilities and diligence and then they will start believing in it, start acting according to it and teach others to do it.*
- *Disparities (at least in the beginning of the process) are OK.*

### **Sn. č. 23: Theory of polarized development (J. Friedman – 1966)**

- ❖ *„core-periphery“ – two basic types of regions*
- ❖ *Core regions – high level of autonomy, innovations*
- ❖ *Linkage effect – innovations create other innovations*
- ❖ *Conflict between core and periphery regions*
- ❖ *Importance of decentralization, reduce the dependance on core region (a new strong center can be created)*
- ❖ *Importance of institutional and behavioral factors*

#### **Notes:**

- *Fragmented = roztržitý – he unified the fragmented terminology of the names of different kind of regions.*
- *He developed Christaller's theory of central places adding some behavioral aspects*

#### **Sn. č. 24: Regional policy inspired by keynesian approaches**

- ❖ 1950s – 1970s (1960s – „golden age“ of regional policies)
- ❖ Regional problems = long-term phenomenon
- ❖ State is responsible for solution of unemployment – active employment policies (space redistribution of labour supply => „work for workers“)
- ❖ Support and subsidies to problem regions
- ❖ Localization of propulsive industries
- ❖ Investment subsidies, loans, tax relief, direct transfers

##### *Notes:*

- *1% GDP in UK for regional policy; porucha=failure; overestimating the multiplier effect, underestimate of integral problems – social, cultural, institutional; getting used to external help*

#### **Sn. č. 25: Kenesian RP - Success and failures**

- ❖ Case of Ireland (1990s)
  - ❖ FDI – still a common tool of economic and regional policies
- ❖ High financial demands for public funds, violation of free competition, top-down approach
- ❖ Violent location of industrial enterprises into problematic regions (in crisis period they shutted down and that deepened the problems even more)
- ❖ Restrictive development policy (restrictions for firms expanding in the wealthiest regions – e.g. London!!!)

##### *Notes:*

- *IRSKO – hodně emigrantů v USA, proto hodne PZI z USA, není to úplně typický příklad keyen,ek, ale invesment incentives are exapmple of state intervention into the market economy.; Irsko - FDI – electronics, software*
- *Factors of success – highly qualified labour (speaking english), common EU market (1973), low tax rate*
- *High fluctuation of investors*

#### **Sn. č. 26: Multiplier - definition**

**Multiplier** generally represents non-dimensional number, that is expressed as the ration of the change in income to the initial change in expenditure that brought it about.

(Pearce 1995).

**Multiplier** expresses value, that multiplies the change in autonomous expenditures in order to count final total effect of increased investment on product Y

(Samuelson 1995).

**Multiplier effect** is a tool of state fiscal policy through which state tries to stimulate consumption in a given area and contribute to the increase in GDP and general welfare in a certain territory.

#### Sn. č. 27: Multiplier - origin

##### ❖ R.F. Kahn

##### ❖ Employment multiplier

##### ❖ Original (primary) and secondary employment

##### ❖ The relation of Home Investment to Unemployment, 1931

##### ❖ ratio of a change in total employment to the primary employment

##### ❖ Argument to support of public works

##### ❖ No relation to national income

##### ❖ J.M. Keynes

##### ❖ The General Theory of Employment, Interest and Money (1936)

##### ❖ Investment multiplier

##### ❖ For short-term period and under condition of not full employment

##### ❖ the ratio of the change in national income to the initial change in planned investment expenditure that brings it about.

#### Notes:

- *Employment multiplier is associated with the name of Prof. R.F. Kahn.*
- *The idea of multiplier had its origin in 1931 when Prof. Kahn was discussing the favourable effects of public investment on aggregate employment.*
- *Prof. Kahn was of the view that an initial increase in employment leads to a very large increase in the total employment.*
- *All discussions on public works prove that besides the 'original' or 'primary' employment in the public works, there will be 'secondary' employment, resulting from public works.*
- *Secondary employment is that which occurs in consumption goods industries as a result of the primary employment in public works.*

#### Sn. č. 28: Multiplier effect

##### ❖ The sequence of events that follow the initial injection

#### Notes:

- *The rise in investment adds to incomes which in turn are partly spent on other products. In turn this means that those who produced the goods have also enjoyed a rise in income and*

*they subsequently spend part of events continuous with a smaller sum of income being passed on at each stage.*

### **Sn. č. 29: Multiplier effect - grafika**

Sn. č. 30: Multiplier – a video

<https://www.youtube.com/watch?v=H3nyc8XHrQc>

### **Sn. č. 31: Multiplier – criticism**

*To increase social income and thereby cure depression and unemployment, it is only necessary for the government to print a certain number of dollars and give them to the reader of these lines. The reader's spending will prime the pump of a 100,000-fold increase in the national income.*

#### **M. Rothbard -- Man, Economy, and State (1993)**

*The usual way to calculate the likely effects of fiscal policy, meaning increases in particular government expenditures and particular decreases in particular tax rates, is through the use of estimated multipliers. The trouble is that existing estimates of those multipliers tend to vary all over the place, from negative numbers to substantial positive numbers. This does not inspire confidence. We have to understand why the range is so wide, and then find acceptable ways to narrow it. There is a perceptible tendency for those who a priori disapprove of discretionary fiscal policy to find smaller multipliers and those who approve to find larger ones. But I think this tendency can be turned into healthy criticism, and lead, if not to consensus, then to a narrower range.*

#### **R. M. Sollow (2011)**

*Notes: Tensed=vyhrocený; sharp=ostrý;*

- *Robert Merton Solow is an American economist, particularly known for his work on the theory of economic growth that culminated in the exogenous growth model named after him; big debate about the use of multiplier as a stimulus for fiscal policy.*
- *Frequent changes in the opinion towards multiplier during the crisis – first expansive policy, 2010 – restrictive, 2012 again expansive*

### **Sn. č. 32: Regional multiplier**

- ❖ *Is based on very similar conditions and it is calculated in a similar way as the national economy multipliers*
- ❖ *The values will be usually lower than the values of multipliers of the national economies as the regional economies tend to be more open so the leakages will come faster*
- ❖ *Smaller areas have limited capacities, hence are forced to use external sources*
- ❖ *Applied in different sectors of national economy*
- ❖ *Very frequent is its application within the assessment of economic impacts of tourism industry (cases of particular touristic regions)*
- ❖ *Multiplier models – REMI model, IMPLAN model, the HERMIN or QUEST models*

### **Sn. č. 33: Local multiplier**

- ❖ A tool developed specifically to express certain elements of local economic development
- ❖ A suitable tool to measure economic effectiveness at the local level from the micro perspective
- ❖ A certain value for a selected institution (municipality, local enterprises, local communities, non-profit organisation, or association etc.) or for a group of inhabitants
- ❖ It represents the so-called “retention ability” of an area and it gives the evidence about the money flow and, also indirectly, non-financial relations within a given space
- ❖ It is **supposed** to be an „quick and easy“ indicator usable by local authorities in order to express their contribution to local development

#### *Notes:*

- *“local multiplier” studies the economic relations between particular local subjects from a microeconomic perspective of particular organisations or individuals, compared to the macroeconomic approach of “regional multiplier”.*
- *It studies the economic relations between particular local subjects from a microeconomic perspective of particular organisations or individuals, compared to the macroeconomic approach of regional multiplier*

### **Sn. č. 34: Process of data gathering for LM3**

### **Sn. č. 35: Calculation of local multiplier**

### **Sn. č. 36: Benefits of local multiplier**

- ❖ Suitable for local level of development (not many methodologies)
- ❖ Easy to calculate (but difficult to obtain dataset)
- ❖ Better for small and mid-size organizations
- ❖ LM3 Online – commercial product
- ❖ Motivation aspect

### **Sn. č. 37: Limits of local multiplier**

- ❖ Demanding data collection (field research)
- ❖ Simplifications in methodology
- ❖ Imperfections in terminology (lm2)
- ❖ Conceptual barriers

#### *Notes:*

- *The LM3 methodology seems to work better for smaller local subjects and organisations with simple proprietary relationships.*

- *This type of organisation, usually, has a tighter interaction with the local community. Specifically, a local multiplier would be a very useful tool for smaller municipalities with up to 500 inhabitants, small and mid-size companies (SMEs), local entrepreneurs, non-profit organizations (NGOs) and some other local institutions. In the optimal case, the subject itself considers the observation of its contribution very important and influential.*
- *Then, the investments into LM3 calculation become the most rational. Additionally, in the case where the initiator of LM2 or LM3 calculation is the subject (organisation, household, individual), all of the process moves faster and smoother.*

*Not only a number (which is, in any case, a strong political argument), but constitutes complex information about locality capacities and the cohesion of money relations among local stakeholders*

Thanks for your attention!



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## Národohospodářská fakulta VŠE v Praze



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