

## **Regional Economic Differences in Iran: Theory and Evidence\***

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### **ABSTRACT**

Increasing concern over the regional dimensions of national economic planning since 1970s, has constituted appropriate baselines for scientific analysis of regional differences. The Iranian planning views in the pre and post revolution era have been examined in this article, based on both theoretical and applied study of regional differences. Then the types and degrees of convergency and/or divergency of differences in the supply-side and demand-side are explained. The lack of scientific and conceptual frameworks in planning process in Iran, based on the results, are the main obstacles for obtaining plan's objectives and designing appropriate strategies in the regional domain. Our findings - from the behavioural and experimental point of view - also confirm the relevance of same story in planning constrains, and indicate the need for improved conceptual frameworks to shed light on the foregoing problems.

**KEYWORDS:** Regional Differences, Regional Planning, Convergency, Iran

### **1. Introduction**

Interregional relations and linkages as a baseline for national-regional planning require a through investigation in regional differences in some indices of regional dispersion in economic activities. Fortunately, the studies

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(specially since 1970s) on the analysis of the regional differences in national planning context [Kuklinski (1975), Waardenburg (1975), Issaev, *et al* (1982), Bookman (1991)], provide hopeful and promising theoretical perspective in this field. The polarization theory [Perroux (1950), Higgins (1976), Higgins (1983), Richardson (1996)], general equilibrium approach [Takayama and Labys (1986), Kohlhase and Ohto (1989)], economic duality approach [such as Jorgenson and Fei-Ranis] and some detailed systems and ideas such as dependency theory specially John Friedmann's authority-dependency system [Friedmann (1972)] and innovative waves theory [Kleinknecht (1990)], constitute the fundamental basis for analysis of regional differences. Although some recent applied studies indicate that regional differences are not necessarily bad [Xiaobin (1996), Kowalski (1986)], the optimality and efficiency criteria must be considered in order to make differences optimal and efficient. In this article, Iran's planning outlook to regional differences has been examined and analysed by certain theoretical criteria. Besides, the results for supply-side and demand-side differences are presented in regional domain and it has been argued that there are some convergencies and divergencies in behavioural and numerical viewpoints that should be analysed through theoretical and conceptual frameworks.

## **2. Theoretical frameworks for analysis of regional differences**

Regional economics is a fairly new discipline which has been seriously undertaken by economists since 1970s. Although some studies can be traced back till 1960s (such as Perroux (1950) and Isard (1960), the 1970s-from the economic viewpoint- was a crucial point of departure in regional studies. The analytical frameworks for analysis and especially synthesis of regional aspects of national planning were found and presented from 1970s to mid 1980s [Friedmann (1972), Kuklinski (1975), Moseley (1974), Issaev, *et al* (1982), Nijkamp (1986)]. Concepts such as growth (or development) poles and economic aspects of spatial planning (that commenced earlier) accompanied with general frameworks for analysis of spatial interactions among regions, such as Friedmann's core-periphery system or Higgin's approach to considering relations between two or more poles, arose in that period. Since mid 1980s, however, the two important topics including regional modelling and regional policies were intensively considered. Some concepts must be distinguished from each other in regional planning



context. First, spatial structure (Sakhtar-e-Fazaei) which refers to the nature of distribution and dispersion of population, activities and resources without considering linkages and interrelational aspects. Second, spatial organization (Sazman-e-Fazaei) denotes relations regardless of introducing planning procedures. Finally, organizing of spatial elements of national plans or spatial planning (Sazmandehi-ie-Fazaei or Amayesh-e-Sarzamin) is the most serious approach which uses the concept of "visible hand" in order to reach to arrangements of spatial structure. Generally speaking, the regional differences may stand up as distorted spatial organization, but these two concepts are not necessarily mutually interrelated and it can be shown that many differences are efficient in the national (or even within single regions) development framework. For example, agglomeration of industrial units in a geographical space together with trickling-down effects of this cluster is capable of creating a growth pole idea is both vital and reasonable in economic growth process. On the other hand, alligation of agglomeration and spread effects can make the differences narrow, and hence extinguish the spatial elements of plan but this equality may not necessarily make the planning process to become more efficient. Efficiency mainly depends on national-regional consistency and using the growth sources in every region proportionate to possibilities and limits of growth in regions, that is obviously far from pure equality viewpoint.

There are several frameworks for analysis of regional differences: polarization of growth, general equilibrium approach and economic duality approach. All of these approaches consent with necessity for the existence of regional difference and emphasize on the key role of these differences in development process. Polarization of growth (as mentioned earlier) stresses on relations between a pole and its hinterland through linkage effects. Linkage effects of growth poles require strength of poles and strength of connections between poles (and between poles and its hinterland, of course), strength of linkages with the rest of the elements of economy and also linkage effects of connectivity between firms [Higgins (1983), Nijkamp (ed.)(1986)]. General equilibrium approach was introduced in regional economics literature since early 1980s, with emphasis on interregional and multiregional modelling. General equilibrium approach by using full informations of regions in decision and policy making, relies on "sufficiency principle" as a crucial criteria against partial equilibrium approach [Takayama and Labys (1986)] since the latter is based on consequences of single regions studies. Finally, economic duality approach makes use of

regional differences in supply-side (i.e., technical duality by Jorgenson) and demand-side (say, classical duality by Fei and Ranis) to investigate theoretical sources of differences and then planning of these sources in turn. In this case, many differences in production conditions or in consumption decisions can be realized, so that they can constitute main elements of an analytical framework for deepening regional convergency in national development process. However, apart from formal (and methodological) distinction among these theoretical viewpoints, the core of all is firstly confirmation of the view of regional differences and secondly, considering these differences in attaining maximum efficiency in national and regional policies. The efficiency arising from dependency principle in former theory (polarization), the sufficiency resulting from full informations in latter one (GEA) and consistency that comes forth from sources of differences in the last approach (duality) altogether suggest a unique theoretical core and baseline, although there seems to be a vast differences in approaches to reach this unique core idea.

### **3. Regional differences in national planning process: The case of Iran:**

Regional aspects of national plans have generally been ignored in Iran and the reasons are obvious. National planning process in Iran is characterized by two main features; integration of overall targets in national level, and sectoral socioeconomic policies. Virtually, the regional aspects were missing links, and little (and disperced) attempts were made to take it into account in a national- sectoral- regional manner. With a "Regional planning for national growth in a sectoral basis and a capital- Oriented policy" as Amirahmadi titled [Amirahmadi (1986), P.151], Iranian policy makers neglected the fact that every activity (on supply-side or demand-side) takes place in a region and Aggregation of regional activities are as important as aggregation of sectors. An important and crucial consequence of this neglected concept was the lack of an appropriate institutional arrangements in such a manner that national- oriented and also sectoral-oriented growth plan without a regional- oriented plan, leading to institutional arrangements in general and institution- making in particular, cast within this framework. Hence some fundamental attempts for considering regional aspects in national planning process in Iran were briefly presented.



### 3-1. Pre- Revolution plans

The first two seven-year plans (1949-55 and 1956-62 respectively), marked by rather unspecified goals for economic growth at regional level together with arrangement for the establishment of a few limited purposes projects such as Moughan plain development organization and Khusistan development organization (in 1953 and 1956 respectively). These organizations were responsible for utilization of natural resources in specific sub-regions [Plan organization (1959), Amirahmadi (1986)]. Besides, the villages and rural areas were ignored up to third five-year plan (1963-67). In third five-year plan, special attention was paid to regional poles, extending the establishment of regional development (Omran-e-mantaghe-ei) organizations. Keeping in mind that it was still too early to take a comprehensive (or general equilibrium) approach to regional planning. Moreover, the special budgets allocated for special territorial programs (Barnameha-ie-Khas-e-nahie-ei) continued in the two following plans. During the fourth five-year plan (1968-72), inconsistencies due to the lack of general equilibrium approach which also existed in previous plans, forced the policy makers to revise the regional growth strategies (specially in allocation of regional or provincial budgets) and, in turn, in organizational and institutional arrangements. For instance: "A number of important administrative changes were introduced at the regional level..., major changes were also made in the organization of the regional development authorities... and recommendations were made by central government planners for regionalization on the basis of socioeconomic criteria... (subsequently) the country was divided into 11 planning regions on the basis of a complex of socioeconomic and geographical factors..." [Amirahmadi (1986), P.507]. Finally, some considerable goals and strategies has been taken into consider as semi and/or partial-comprehensive plan (authors' opinion) in fifth five-year plan (1973-78). Battle's regional development project report explains some overall regional plan objectives in fifth plan [plan organization (1972)]. Two important objectives were the minimization of regional income disparities and attaining assigned plans' development programs. These objectives include acceleration of rural and small/medium-scale industry development, increasing benefits from planned and existing national development programs, raising the level of social services to minimum standard (thus reducing regional imbalances), maximizing local participation in the implementation of public sector development projects, strengthening and decentralizing of the regional planning machinery. These

objectives were implemented, considering the regional dimensions of sectoral programs and "supplementary and complementary" programs [Ibid, PP. 5-6]. Although the results of these procedures constituted an important subject for debate (and it would greatly complicate our discussion), it can be argued that, irrespective of plausible formal aspect of regional dimensions of this plan, the constructed and contemplated objectives had almost negligible effect and were seldom efficient because of the lack of practical intention among governmental authorities.

The last pre-revolution plan was the sixth five-year plan (1979-83) which was never launched because of the occurrence of Islamic revolution. In sixth plan, there were four main objectives in spatial planning: attaining equivalent spatial distribution of population and activities, determination the role of the cities, main villages and urban centers in economics of regions (and urban hierarchy), recognition of relations between urban and rural areas and finally reducing the interregional spatial dispersions.

### **3-2. Post - Revolution plans**

After three decades of planning experience and also alighting islamic revolution, drastic changes occurred specially in cultural, social and overall viewpoints in Iran. After long wartime, post-revolution plans designed and experienced with more different and exalted (also comprehensive) than earlier ones. Although the efficiency criteria were in mind but the most important paradigms of regional planning in post-revolution period was "equality concept" or equality oriented system: "The post- revolution Iranian economy is characterised by two central themes, stagnation and promotoin of interregional equalization measures" [Kano (1996), P.425], specially to strenghten the less developed and deproved regions (Manategh-e-mahroum). Here, we briefly explain some of the most important characteristics of post-revolution plans from regional point of view. The first plan (1989-93) hasn't essentially distinguished and highlighted dimensions for regional planning. In this plan, the national- sectoral approach was dominant, as it was before, and limited sub-articles of the plan contained indirect and implicit references on this subject. During the first plan, however, some attempts were made to eliminate the regional imbalances, but these efforts were mainly out-of-plan efforts and have not been explicated in the plan. In the second plan (1995-99), administrative arrangements (during preparation of plan) and related issues were reflected



explicitly in the plan act. Example of former is organizing the "Amayesh-e-sarzamin" committee to design provincial (and regional, in turn) plans beside the national and sectoral one. Example of latter is also the second article of the act which specifies allocation of subject to provinces and regions. The former, however, was a temporary decision, therefore it failed to recognize the national-sectoral-regional linkages and relations. Also, the committee was unable to set guidelines and provide useful hints in planning process. Thus, single regions made their own programs. With regard to latter example, it can be said that the resulting consequences of that article was the legal arrangements in allocation of budgets at provincial level and no more, but this effort furnished important foundation for regional dimensions of the third plan.

The third plan (2000-2004), following previous plans, paid widespread attention to regional dimensions. In the plan act, a special and detailed section was set for regional (provincial) affairs titled "provincial income-expenditure system" (Nezam- e- daramad- hazine- ie- ostan). In this system, the provincial planning deliberation is established for investigation (or verification) and confirmation of medium- term and long- run programs in each province. Also, for organizing the provincial budgeting, an auxiliary treasury (Kazane- ie- moeen) was designated and established during the plan period. It seems the plan strictly emphasises on two main problems that is the provincial budgeting affairs and related administrative arrangements which are both far from predetermined conceptual and comprehensive spatial scheme in regional dispersion of national variables. Indeed, the so called blind point of previous and present plans is the lack of these visions. Although it is acceptable that every planning process in spatial viewpoint and regional level needs to clarify the lines of interrelation among regions (and other spatial elements), it must be noted that in regional decision making relying on administrative dimensions without considering conceptual viewpoints, can lead to failure in achieving desired (optimal) dispersion of activities among other things.

### **3-3. suggestions for future plans**

Spatial dimensions of development plans specially from regional differences point of view are at least one of the most triple dimensions (together with national and sectoral dimensions) of an economic plan and theoretical foundations lie in the heart of it. It can be argued that almost all

of the pre and post- revolution plans in their regional dimensions suffer from the lack of scientific knowledge and scientific vision. In other words, the plans had a missing link called theoretical foundations thus in any new plan, a special attention must be paid to theoretical concepts, rules, paradigms and criteria to encounter main regional problems and abstruse issues. The lack of comprehensive framework for regional goals, policies and strategies is considered a crucial shortcoming. In order to keep the plans more compatible with scientific foundations of regional planning, the plan must be equipped with scientific preparation and consideration. For instance, the distinction between growth poles and growth centers related to trickling-down and spread effects need an overall recognition and understanding of concepts such as interregional linkages and specially a detailed comprehensive framework. Such concepts assist the planner to investigate and analyse these linkages including dominancy theorem or core-periphery framework proposed by John Friedmann (1972). The distinction between development and growth concepts (such as development poles and growth poles) related to innovative waves and types of agglomeration effects, however, would complicate the analysis, in turn. Thus, attaining theoretical foundations of regional policies have some difficulties that every community must pay to enrich bliss point, the thoughtness of the fight that must be met and overcome by regional planner as well as national and sectoral ones.

Designing the comprehensive plans for analysis of regional problems, preparation of institutional arrangements such as organizational and market-based institutions beside the legal and administrative ones, investigation of optimal distribution of population and activities and hence optimal regional differences and so on all depend on scientific and theoretical foundations of plans and policy decisions.

#### **4. Regional differences in Iran: convergency or divergency?**

In previous sections, we argued that the existence of regional differences in a spatial structure is not necessarily an abnormal element in planning process, but we must consider it within the overall (or comprehensive) context. To analyze the optimality and efficiency of regional dispersion of national variables, it must be distinguished between the two kinds of variables namely "equivalent" and "proportionate" of which the former has a distributive role among regions based on equalization principle



while the latter has not equivalence purposes and need not necessarily be distributed to make regions equivalent. Besides, the mathematical nature of variables as additive and multiplicative is of paramount importance. Generally speaking, the optimality or efficiency criteria for equivalent variables are narrowing regional differences while for proportionate ones, the convergency of actual and optimal values is considered for each region. These two ideas are depicted in figures 1 and 2 respectively (directions of

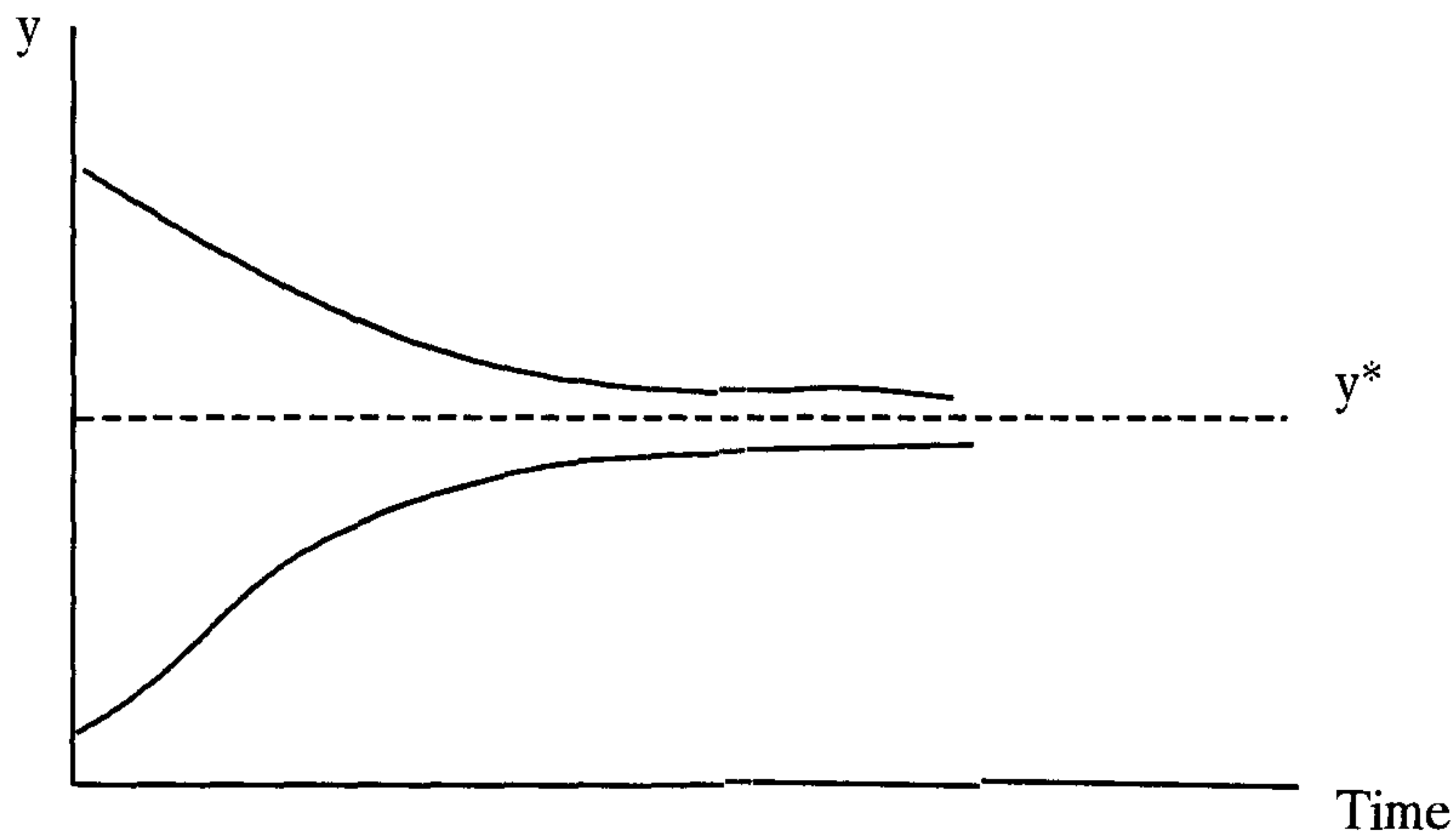


Figure 1: Convergency criteria for equivalent variables

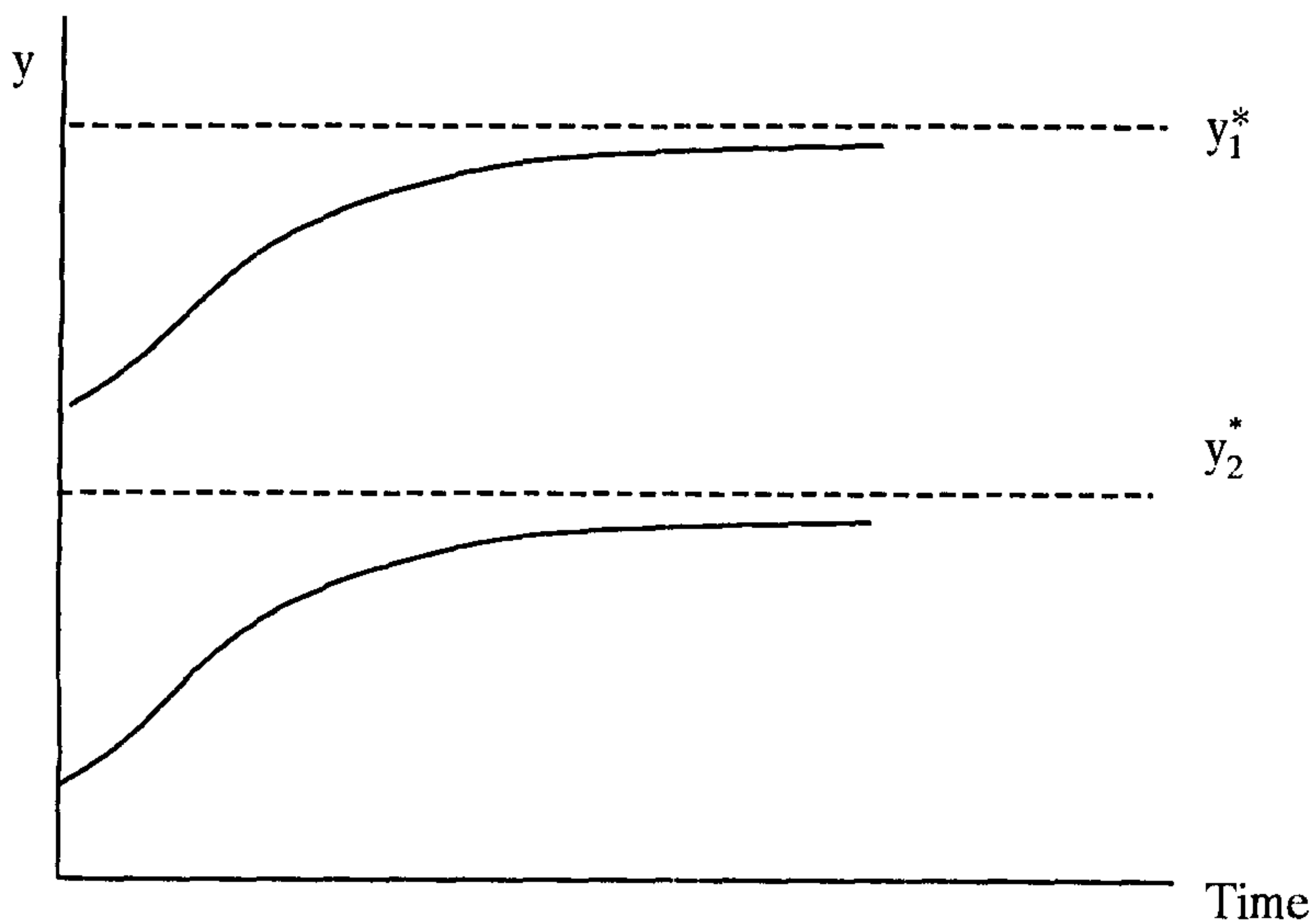


Figure 2: Convergency criteria for proportionate variables

convergency are arbitrary chosen). Although the most appropriate criteria for proportionate variables are autonomous convergency, here we investigate regional differences of all kinds by equalization principle because of the lack of authentic optimal values for single regions. In fact, this is a simple formulation and explanation of regional differences considering the nature of variables.

#### 4-1. Supply- Side differences

The supply-side differences extracted due to industrial indices. As buttler (1975), we can rely on spearman's rank correlation coefficients matrix defined as:

$$A = [R_{r;s,t}] \quad s, t \in T \quad (1)$$

Where R are spearman's rank correlation coefficients here set for comparing periods s and t, thus the convergency criteria will be:

$$R_{r;s,t} > R_{r;s,t'} \quad s, t, t' \in T \quad (2)$$

Where  $t > t'$  The results for value added in large industrial firms in period 1981-96 are shown in table 1. The results imply general tendency to divergency with some limited exceptions. For instance, the coefficient for year 1996 has fallen (with some oscillations) from 0.773 conditioned to 1982 into 0.337 conditioned to 1992. The results for employment, per capita (per worker) remuneration and investment compared with value added suggests that the overall divergency is larger for per capita remuneration (0.064), investment (0.296), value added (0.610) and employment (0.612) respectively.

#### 4-2. Demand- side differences

The demand-side differences can be shown by regional differences in consumption and income variables. Urban-rural gap in consumption expenditures varies from region to region (examples are in table 2). Consumption gap is on the basis of urban-rural as below:

$$G_c = \frac{C_{ur}/P_{ur}}{C_{ru}/P_{ru}} \quad (3)$$

Where  $C_{ur}$  and  $C_{ru}$  are consumption expenditures in urban and rural areas respectively and P denotes population. For instance for regional



**Table 1: Spearman's rank correlation coefficient matrix for large industrial firm's value added in Iran (1981-96)**

year	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1981	1	0.5557	0.6043	0.6026	0.6417	0.5461	0.5635	0.6287	0.5061	0.4035	0.3687	0.5643	0.3017	0.5200	0.1826	0.3174
1982	0.5557	1	0.9478	0.9035	0.7826	0.8191	0.7261	0.5609	0.6496	0.3600	0.5330	0.3330	0.4478	0.6313	0.5835	0.7730
1983	0.6043	0.9478	1	0.9530	0.7304	0.7774	0.6974	0.5861	0.5539	0.3383	0.4687	0.4139	0.4270	0.6670	0.5948	0.7583
1984	0.6026	0.9035	0.9530	1	0.6704	0.7757	0.6200	0.5357	0.5922	0.3539	0.5139	0.4348	0.4870	0.6730	0.5278	0.7661
1985	0.6417	0.7826	0.7304	0.6704	1	0.8696	0.8435	0.7374	0.6948	0.5391	0.4983	0.4696	0.4678	0.7043	0.6270	0.6365
1986	0.5461	0.8191	0.7774	0.7757	0.8696	1	0.7965	0.6835	0.6235	0.4557	0.5261	0.3870	0.4887	0.7513	0.6383	0.8061
1987	0.5635	0.7261	0.6974	0.6200	0.8435	0.7965	1	0.8217	0.7452	0.5487	0.5522	0.4478	0.3165	0.6678	0.5478	0.5452
1988	0.6287	0.5609	0.5861	0.5357	0.7374	0.6835	0.8217	1	0.6826	0.7157	0.5557	0.7174	0.4957	0.6974	0.5009	0.5139
1989	0.5061	0.6496	0.5539	0.5922	0.6448	0.6235	0.7452	0.6826	1	0.6313	0.7278	0.5400	0.4409	0.4965	0.4826	0.5139
1990	0.4035	0.3600	0.3383	0.3539	0.5391	0.4557	0.5487	0.7157	0.6313	1	0.3800	0.6226	0.4687	0.6696	0.5261	0.5443
1991	0.3687	0.5330	0.4687	0.5139	0.4983	0.5261	0.5522	0.5557	0.7278	0.3800	1	0.4957	0.3983	0.4487	0.5113	0.4148
1992	0.5643	0.3330	0.4139	0.4348	0.4696	0.3870	0.4478	0.7174	0.5400	0.6226	0.4957	1	0.4017	0.5487	0.3939	0.3365
1993	0.3017	0.4478	0.4270	0.4870	0.4678	0.4887	0.3165	0.4957	0.4409	0.4687	0.3983	0.4017	1	0.5148	0.4557	0.6783
1994	0.5200	0.6313	0.6670	0.6730	0.7043	0.7513	0.6678	0.6974	0.4965	0.6696	0.4487	0.5487	0.5148	1	0.6217	0.7878
1995	0.1826	0.5835	0.5948	0.5278	0.6270	0.6383	0.5478	0.5009	0.4826	0.5261	0.5113	0.3939	0.4557	0.6217	1	0.7626
1996	0.3174	0.7730	0.7583	0.7661	0.6365	0.8061	0.5452	0.5139	0.5139	0.5443	0.4148	0.3365	0.6783	0.7878	0.7626	1

**Table 2: Urban - rural consumption gap in selected provinces in Iran (1977-1999)**

Year	Hormozgan	Sistan and Baluchestan	Kohgiluyeh and Boyer Ahmad	Tehran	East Azarbaijan	Ardebil	National level	
							Average	Dispersion Index*
1977	2.45	4.36	1.96	3.37	1.45	1.45	2.11	0.36
1978	4.21	4.37	1.74	1.39	1.5	1.5	1.97	0.38
1979	3.89	3.56	1.9	2.13	1.01	1.01	1.84	0.34
1980	2.77	2.2	2.34	1.65	1.03	1.03	1.57	0.29
1981	2.43	2.49	1.86	1.68	1.13	1.13	1.66	0.24
1982	2.14	2.83	1.48	1.72	1.24	1.24	1.75	0.23
1983	4.51	4.26	4.08	4.76	2.45	2.45	3.59	0.28
1984	2.29	2.22	2.69	1.61	1.46	1.46	1.85	0.22
1985	2.72	2.04	2.85	1.73	1.42	1.42	1.89	0.26
1986	2.55	1.88	2.8	1.62	1.34	1.34	1.73	0.24
1987	2.39	1.73	2.74	1.52	1.26	1.26	1.46	0.24
1988	2.23	1.59	2.69	1.42	1.19	1.19	1.21	0.24
1989	2.09	1.54	2.64	1.33	1.13	1.13	0.9	0.26
1990	1.96	1.5	2.59	1.24	1.06	1.06	1.84	0.26
1991	1.83	1.45	2.25	1.32	1.17	1.17	1.58	0.18
1992	1.72	1.41	1.92	1.34	1.13	1.13	1.64	0.16
1993	1.61	1.36	1.78	1.39	1.15	1.15	1.69	0.15
1994	1.51	1.32	1.43	1.62	1.18	1	1.6	0.16
1995	1.78	1.8	1.64	1.54	1.15	0.82	1.49	0.19
1996	1.53	1.56	1.69	1.71	1.27	1.17	1.58	0.16
1997	1.7	1.55	1.45	1.69	1.23	1.09	1.57	0.15
1998	1.67	1.62	1.44	1.62	1.16	1.07	1.54	0.16
1999	1.55	1.6	1.72	1.57	1.3	1.13	1.52	0.13
Average	2.29	2.27	2.16	2.05	1.28	1.24	1.77	—

\* Standard Error / Average



differences in  $G_c$ , the average of this gap in sample period (1977-99) for Hormazgan and Tehran provinces was 2.29 and 2.05 respectively while in East Azarbaijan, Ardebil and at national level was 1.28, 1.24 and 1.77 respectively. An almost twofold differences in  $G_c$  between provinces is not negligible. On the other hand, the tremendous and specially interregional behaviour of  $G_c$  over time, put forth deliberate questions. The vast interregional (for provinces) differences in  $G_c$  values and  $G_c$  behaviour over time, indicates almost unique characteristics for each province. Finally, the  $G_c$  values at national level had with some fluctuations a relative decreasing behaviour so that its value declines from 2.11 in 1977 to 1.75 in 1982 (but 3.59 in 1983) and 1.52 in 1999. The regional dispersion of  $G_c$  values also falls in such a manner that the ratio of standard errors (over regions) and mean value for  $G_c$  were in the same years 0.36 , 0.23 and 0.13 respectively. Income index of gap between urban and rural areas also repeats the same story. the decreasing  $I_c$  values (evaluated the same as  $G_c$  but for income) in national level occurs so that it takes 2.70, 1.81 and 1.61 in 1977, 1982 and 1999 respectively. The regional dispersion ratio (as mentioned above) is 0.30, 0.28 and 0.18 in the mentioned years respectively. Briefly speaking, the demand-side differences in the period 1977-99 can be characterized by convergency together with crucial differences in  $G_c$  and  $I_c$  behaviour over time that the latter is an important caution to regional policy-making.

#### **4-3. National - regional consistency**

Kuklinski (1975) and waardenburg (1975) shed light on regional planning the conceptual attitudes of national-regional consistency based on the nature of national plans and policies and also on class of mobility of goods and services. Recent studies on these considerations (and also conflicts) such as prescott (1980), Kowalski (1986), Xiaobin (1996) and Kangasharju (1998) are in this direction. Based on the conceptual frameworks, national- regional disparities in Iran seem to be existent rather in behavioural interactions. The numerical indices and resulting values are not so divergencies as expanded while the nature and structure of activities from national and regional viewpoints make numerical convergencies in the same way or other as stable. Thus, to achieve overall convergency, it can be suggested that national and regional decisions must be closer to each other based on the conceptual illuminations.

## 5. Concluding remarks

The theory of regional economics specially from regional planning viewpoint contains many powerful and interesting frameworks for the evaluation and analysis of regional differences. Conceptual results stem from scientific approach (such as polarisation of growth, general equilibrium approach and economic duality approach) can aliment practical issues to take optimal decisions. The experience of planning process in Iran shows that the main hindrances of optimal regional programming are not feasibility or accessibility of sources of growth but are conceptual ones.

In the next step, the investigation of interregional linkages in regional domain as well as interfirm linkages in sectoral domain are highly recommended. Such linkages are the baselines of interregional and intersectoral flows (information flows, commodity flows and financial flows, for instance) that constitute main links between spatial elements in national plans. Results from experience of plans as well as numerical results for main supply-side and demand-side indices state that regional differences in Iran are either divergent or convergent and there is no obvious evidence to make connection lines between plan's operations and the existing spatial structure in a manner that conscious and effective decisions should exist. Finally, to start from a detailed point for resolving (and not necessarily eliminating) regional differences in a way that the regional conflicts (in behavioural and numerical viewpoints) vanish, on the nature of variables and the kind of attained convergency criteria should be noted as previously mentioned, but this is only a starting point and the rest of the problem should be properly examined and studied in light of theories of regional economics.

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