

*Krešimir Peračković\**  
*Ivo Turk\*\**  
*Luka Šikić\*\*\**

JEL classification: J00, J10, O14  
 Preliminary statement  
<https://doi.org/10.32910/ep.74.3.1>

## **TERTIARIZATION PROCESS IN CROATIA – LONG TERM CHANGES IN THE STRUCTURE OF ECONOMIC ACTIVITIES BY SECTORS**

*This paper analyses a structural change by economic sectors in general and tertiarization process in particular, for the period 1971-2011 in Croatia. It started from the classical economic theory of service sector growth and demographic approach by using the data collected from the population censuses, to analyse long term changes and trends in the sector's structure. The process of tertiarization is usually defined as an increase in the share of service sector employment in total employment and we assume as a continuous long term process, it is influenced by different factors in different periods, and mostly the ones that have accelerated the process of deindustrialization as well in the past. Our results confirm a structural change that favours service sector growth during the whole period, not only in last three transition decades, along with the simultaneous reduction in agricultural and industrial sector shares. The main limitation is fact that those results are just a fundamental but necessary first step based on demographic statistics which reveal some elementary insights useful for further analyses. Scientific assessment of this article is in interdisciplinary approach of explanation of*

---

\* K. Peračković, Ph.D., Scientific advisor, Institute of Social Sciences “Ivo Pilar” Zagreb (e-mail: kreso@pilar.hr).

\*\* I. Turk, Ph.D., Scientific advisor, Institute of Social Sciences “Ivo Pilar” Zagreb (e-mail: ivo.turk@pilar.hr).

\*\*\* L. Šikić, Ph.D., Assistant Professor, Catholic University of Croatia, (e-mail: luka.sikic@unicath.hr). The paper was received on 20.08.2020. It was accepted for publication on 07.10.2021.

*different impacts and specific features of tertiarization process in Croatia since 1970s. Also, the contribution of this paper is at the same time the collection and presentation of a new set of data combined in one article from several sources, which can be the basis for some further research. The results also consider the question if this process was accompanied by the economic growth and development observed in the rich and more developed countries or this shift towards service society with postindustrial division of labour does not come along with expected modernisation and developmental effects.*

**Keywords:** *industrial sectors, services, tertiary activities, tertiarization, deindustrialization, deagrarization, postindustrial society.*

## 1. INTRODUCTION

The structure of population by economic activity, as one of the main determinant of economic processes at all, is often used also for the analysis and projection of a society's development path. Features and dynamics of this structure is of a particular research interest in variety of disciplines like economics, demographics, geographics and sociology because it defines the underlying economic activity of a population and therefore influences the natural and mechanical movements of population (Friganović, 1990). The methodological appendix of the Croatian population census from 2011 defines *economic activity of a population as every activity of an individual that adds or has potential to add value in the process of production of goods and services in a given period, with intention to acquire resources for life*<sup>1</sup>. It means that the economic activity is defined respective to the business sector of the firm where the individual is official employed. For the sake of cross country data comparability, economic activities are broadly grouped under the three *sectors of production*: primary, secondary and tertiary sector, where tertiary sector can be further decomposed in quaternary and quinary sectors (Peračković, 2011). Each of the production sectors has a specific structure where one or more economic activities dominate in relative size.

The primary sector includes economic activities like agriculture, livestock, fishery and forestry. In the early development of mankind, these were the basic and self-subsistence activities that prevail even today in underdeveloped countries and characterize agrarian civilizations (Friganović, 1990). The secondary sector

---

<sup>1</sup> Source: 2011 Census, Methodological Explanations (<http://www.dzs.hr/>. Visited March 17, 2019).

includes economic activities like mining, industry, construction, water management and craftsmanship. These activities were most important in economies of the rich and developed countries and mark the era of industrial civilisation (Nejašmić, 2005). The tertiary sector includes non-manufacturing activities like service crafts, transport industry, HoReCa<sup>2</sup> business, trade and finance. This sector developed on the top of the primary and secondary sectors, and makes a main feature of the tertiary civilization or *service society* (Illeris, 1994). The development of a quaternary sector is related to an increase in the general level of development and more complex division of labour and includes administration, defence, education, health, science, culture and similar services (Nejašmić, 2005). The quinary sector includes activities like state administration and security. For the purpose of inter-temporal comparability of data, we investigate the quaternary and quinary sectors under the aggregated tertiary sector. The structure of population by economic activity and relative size of three main sectors determine the level of socio-economic development of a country, whereas cross-country differences in composition of these three sectors correspond to different stages of economic and social development (Baletić, 1999). Based on this reasoning, the following classification of countries can be made: 1. agricultural type I-II-III or I-III-II; 2. industrial type II-III-I; 3. Service Type III-II-I (Nejašmić, 2005).

This paper analyses a structural change in Croatia through the long term shifts in the relative size of three main sectors of production from 1971-2011. We use data on employed active workforce decomposed by economic activity and gender, collected from several population censuses to analyse time variation of sectoral share sizes. The analysis is motivated by the widely observed growth of the service sector as well as the lack of comparative literature in Croatia. Our analysis focuses on long term developments of the tertiarization process in Croatia from a socio-demographic perspective. In the following chapter of literature review, first will be presented main theoretical concepts about the growth of the service sector along with the demographic approach<sup>3</sup> used in the analysis, then also the descriptive overview of tertiarization trends in Croatia. After that, empirical results and discussion are given in the fourth section and concluding remarks are provided at the end.

---

<sup>2</sup> Horeca (or HORECA) is the sector of the food industry that consists of establishments which prepare and serve food and beverages (food service). The term is a syllabic abbreviation of the words Hotel/Restaurant/Café (Source: English Encyclopedia <https://www.encyclo.co.uk/meaning-of-Horeca>. Visited July 28, 2021).

<sup>3</sup> Demographic approach refers to the role of total population in a country for the quantification of working population, as defined in the demographic theory (Wertheimer-Baletić, 1999, 4) and commonly analysed in the demographics literature. Furthermore, our empirical sample encompasses the full population as a characteristic of the demographic approach, not the data sample, as in, for example, sociological research.

## 2. LITERATURE REVIEW

### 2.1. *Theoretical approaches to the growth of the service sector*

The most prominent theory of service sector growth revolves around three stages of economic growth: primary, secondary and tertiary stage (Eatwell, Milgate and Newman, 1987). The three stages of growth theory was first proposed by Fisher (1939) in his article *Production, Primary, Secondary, Tertiary* and further deepened by Clark (1957) in the book *Conditions of Economic Progress*, where he investigates how division of labour influences economic growth. Clark names the primary sector-extractive, the secondary sector-productive and tertiary sector-services. He analyses economic growth in terms of labour force transition from one sector to another, where this transition reflects inter-sectorial productivity differences (Peračković, 2011). At the time of Clark's writing, it was already evident that the secondary sector (industry and construction) accounted for the largest share of the employed workforce, mostly due to the decline in primary industries. Furthermore, the secondary sector was more technologically advanced and operated with higher levels of productivity which significantly benefited the overall economic growth. Already after the Second World War, the relative share of service sector in most developed economies was increasing in terms of employment and GDP shares (Jovančević, 1997).

Although the term tertiarization has come into daily use and is occasionally mentioned in the media, this topic has only been marginally researched in the domestic, i.e. Croatian literature. This is not the case in foreign literature, where tertiarization is extensively researched and defined, for example in economics (Schettkat and Yocarini, 2003). Moreover, the term tertiarization in Croatian demographics, geographics and economics textbooks, contemporary dictionaries and lexicons is still receiving a limited treatment. This is in stark opposition to the term deindustrialization, which is clearly defined (even in the sociological lexicon<sup>4</sup>), especially taken that the service sector has expanded in size relative to the industrial sector in all modern capitalist economies and many new service sector activities have emerged, including financial and communication-information services, distribution, education, health and many new personal services (Fuchs,

---

<sup>4</sup> The sociological dictionary defines de-industrialization as a structural shift within capitalist economies in terms of declining industrial production (Abercrombie, Hill, & Turner 2008). The importance of industrial production, when measured by the share of industrial production in total production or the share of the population employed in manufacturing is declining in many industrial countries, reflecting the introduction of technology that rationalizes labour and consequentially the number of employees in industrial production.

1968; Gershuny and Miles, 1983; Cohen and Zysman, 1987; Hirschhorn, 1988; Ozretić Došen, 1993; Jovančević, 1997; Baletić, 1998; Peračković, 2010). In the absence of a definition in domestic literature, we propose to define tertiarization in two ways: (1) as a predominance of service professions in the socio-professional structure and (2) as a relative increase of service sector share in the structure of economy and as the share of tertiary sector in GDP.

The tertiarization process, as previously defined, was surprisingly first analysed by sociologist Daniel Bell, who coined the term *postindustrial society* (Bell, 1999). Bell noted that since 1950s, Western capitalist countries have already become postindustrial societies, and that a similar change was already unfolding in socialist countries as well, despite the political and ideological differences and primarily due to the automatization of production. However, Castells (2000) and number of other earlier authors (Tourain 1980; Toffler 1981; Kumar, 1986), and more recently Hansen (2001), Webster (2006) and Cohen (2009) have deepened, criticized, and empirically questioned Bell's theses. Tourain analysed the impact of postindustrial change on the culture and politics and extended Bell's theory by incorporating social values as indicators of cultural dimension of society and explaining emergence of new social conflicts in the political dimension. Toffler and Kumar analysed impacts of that change on everyday life and Hansen, Webster, Cohen but even more so Castells analysed the dynamics of technological development of economy and society and coined the term *information society* as a contemporary version for the term *postindustrial society* which also signifies the presence and growth of tertiarization process among economy sectors (Castells, 2000).

## ***2.2. Development of the Tertiarization Process in Croatia – Current Knowledge***

As we mentioned before, demographic researches point out the importance of analysing labour force structure by sectoral activity in order to analyse the dynamics and levels of socio-economic development (Wertheimer-Baletić 1991). In the terms of relatively recent history, the transition of labour force from agrarian to manufacturing sectors was influenced by the technical and technological progress. Similarly, the shift in the labour share from agricultural towards manufacturing sector was driven by the improvement in industrial conditions and technology, i.e. increase of the relative productivity of workers in the industry, as well as the rising demand for labour in manufacturing sectors. Therefore, the composition of labour shares defines the level of development of a particular area (Wertheimer-Baletić, 1991).

The term *economic activity* is usually defined as a type of production or service engaged in by a worker or other organization in which a person pursues an occupation (Wertheimer-Baletić, 1999). This means that activity also refers to the economic activity of a business entity in which the person works so we accept the official definition of activity from 2011. Population Census defines it as *a characteristic of the economic activity of an enterprise, institution, craft, free profession, agricultural holding or any other form of business entity, but also an independent business, in which a person pursues his or her profession in order to obtain a livelihood*<sup>5</sup>. Therefore, the National Classification of Activities (NKD, 2007), which is harmonized with the Statistical Classification of Economic Activities in the European Union – NACE Rev. 2, was used for the classification of employed workforce by industry.

This approach to the topic was mainly addressed by demographers in population studies (Akrap, 2011; Nejašmić, 2005; Wertheimer-Baletić, 1978). On the other hand, sociologists consider these processes in the context of changes in the socio-professional structure (Peračković, 2010) and the educational and economic structure (Majetić, 2015) or as the employment structure shift (Matković, 2003). Economists have focused their analysis on the sectoral productivity differences (Gelo and Družić, 2015) as well as the sectoral exposure to the international market (Gelo and Družić, 2016). All of this papers indicate that the process of tertiarization in Croatia started in the time of the former Yugoslavia, around 1970s, and extends into the 1980s. Immediately after the World War II, the process of deagrarization intensified and industrialization gained momentum. This process, culminating in the late 1960s and early 1970s is usually referred to as the second Croatian modernization (Rogić, 2000).

Since 1970s, the share of female workers in the labour market has started to increase significantly and supported tertiarization, while the simultaneous de-industrialization process, caused primarily by the automation of production, was pushing the low skilled workers out of the manufacturing sector. Tertiarization and de-industrialisation processes intensified in 1980s and 1990s, producing a significant change in the structure of economic activities (Peračković, 2010). However, it is insufficiently emphasized in the literature that the tertiarization process with the on-going deagrarization and de-industrialization, simultaneously occurs in the last phase of the demographic transition. It is important to note that the demographic transition also acts as one of the major drivers of change in the structure of economic activity of the population<sup>6</sup>. One of the most significant consequences of

---

<sup>5</sup> Source: 2011 Census, Methodological Explanations (<http://www.dzs.hr/>. Visited March 17, 2019).

<sup>6</sup> The final stage of the demographic transition process is the maturity stage, present in most developed countries of the West. Its characteristics are the low rate of natural population growth,

this transition is reflected in the aging of population (Nejašmić and Toskić, 2013; Bara and Podgorelec, 2015; Peračković and Pokos, 2015). Older population puts increasing demands on health and social care (Puljiz, 2000) and raises demand for the types of services that favour women's entry into the labour force (Akrap, 2011) but also a demand for the work previously done by women at home. Consequentially, this raises demand for services, and respectively, supports tertiarization. In addition, several other factors influence tertiarization process. The development of the leisure industry (Gjivoje, 2008) as well as the creative and cultural industries (Švob-Đokić et al., 2008), which in turn creates a completely new, previously non-existent service professions like tourism, entertainment events (events), film industry and culture in general. With greater marketization of supply and demand of products, services and information, the service industry as well as service professions become more specialized and polarized on the stratification scale. This polarisation is reflected in the demand for the top experts in the field of informatics, finance, marketing and human resources. Increasing demand for new knowledge gives further momentum to the development of universities, private polytechnics and education in general. At the other part of the stratification spectrum, i.e. bottom, are temporary and seasonal workers (precariat) with lower qualifications and education. These occupations include cleaning, maintenance, catering, and seasonal work in tourism, predominantly occupied by women.

### 3. METHODOLOGY, EMPIRICAL DATA AND ANALYSIS

#### 3.1. *Analysis of changes in structure by sectors of activity in Croatia from 1971 to 2011: Objectives and hypothesis*

Our aim is to research the tertiarization process in Croatia, its dynamics and supporting factors over a period of 40 years, as well as the possible role of gender in this process. The main *hypothesis* is that the process of tertiarization takes place in parallel, gradually and continuously, with deagrarization and de-industrialization, and that the structure of economic activities in Croatia takes on the characteristics of post-industrial society. This also implies the second *hypothesis* that significant differences with respect to gender exist in these processes, especially since women take on a bigger share in service activities since the onset of tertiarization process.

---

birth rates and mortality. Such a situation leads to depopulation but also to an aging population, which is evident in the increase in share of the older age group in the population structure by age (Wertheimer-Baletić, 1991).

### 3.2. *Data sources and methods*

The main source of data is the Population Census of Croatia that we analyse with descriptive statistics, also called in demographic literature *demographic statistics*<sup>7</sup>, applied on successive censuses from 1971 to 2011. Our empirical dataset is collected and compiled from census books and census tables for 1971 and 1991; statistical yearbook for 1981; and for 2001 and 2011, data is retrieved from the Croatian Bureau of Statistics web site. It is important to emphasize that we collected and compiled census data from 1971 and 1981 from the printed censuses, only available in historical archives. The population tables with absolute numbers of population data by sectors of activity will be presented in next section first, followed by the comparison of relative numbers (i.e. percentages) by sectors of activity (primary, secondary and tertiary) and disaggregated by the total working population and gender.

### 3.3. *Data and analysis*

Tables 1,2,3,4 and 5 show the working population size by the sector of activity and gender for years 1971, 1981, 1991, 2001 and 2011 in absolute numbers. This data are not open sourced and we present it here as a basis for potential future research. Table 6 shows all activities by census year aggregated up to the level of three main production sectors. The figures 1, 2 and 3 show relative numbers of sectoral shares by each census year, first for the total active labour population from 1971 to 2011 and then by gender of active labour population as well. Finally, the interpretation of the results and the main conclusions are presented.

---

<sup>7</sup> Demographic statistics is a branch of statistics commonly applied on demographic variables and processes. Demographic statistics includes: a) distinctive data collection methods like population data, population censuses, methods for analysing natural population dynamics, migration statistics, survey designs for total population or specific groups of society, b) methods for defining characteristics and classifications of population, c) population data analyses and its public presentations (Wertheimer-Baletić, 199, 45).



*Table 1*

ACTIVE POPULATION IN THE COUNTRY BY ACTIVITIES  
 AND GENDER 1971

<b>Activity</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>
industry and mining	376 828	243 550	133 278
agriculture and fishery	743 389	397 775	345 614
forestry	15 051	13 732	1 319
construction	83 931	75 609	8 322
transport	96 287	83 989	12 298
trade and catering	146 090	73 252	72 838
craft	105 938	81 561	24 377
housing and utilities	26 830	21 640	5 190
culture and social work	122 246	44 775	77 471
social and civil service activities	66 213	43 540	22 673
other	7 443	4 067	3 376
out of business	22 918	13 393	9 525
unknown	8 745	5 728	3 017
<b>Total</b>	<b>1 821 909</b>	<b>1 102 611</b>	<b>719 298</b>

Source: 1971 Population and Housing Census, by Republic and Province, Belgrade, Federal Bureau of Statistics, 1971, p. 24.

Table 2

ACTIVE POPULATION IN THE COUNTRY BY ACTIVITIES  
AND GENDER 1981

Activity	Total	Male	Female
industry and mining	494 209	296 409	197 800
agriculture and fishery	435 466	230 985	204 481
forestry	13 817	12 260	1 557
water management	5 470	4 869	601
construction	136 598	122 437	14 161
traffic and connections	125 571	106 715	18 856
trade	148 120	70 641	77 479
catering and tourism	74 428	29 559	44 869
craftsmanship	75 802	57 135	18 667
housing and utilities	30 246	25 173	5 073
finance and other	53 607	25 898	27 709
education and culture	91 617	37 165	54 452
health and social protection	83 064	18 058	65 006
socio-political organizations and SIZs	94 745	55 585	39 160
Unknown	28 741	19 139	9 602
<b>TOTAL</b>	<b>1 891 501</b>	<b>1 112 028</b>	<b>779 473</b>

Source: Statistical Yearbook of the Federal Republic of Croatia 1984, Table 20. "Active population of Croatia engaged in occupation in the country by activity 1981".

It is important to note here that in the 1981 census, trade was singled out and tourism was joined to the catering, an activity not mentioned in 1971. The craft is renamed to craftsmanship in 1981, the transport is extended to traffic and connections, traffic was renamed to traffic and connections, and education is added to culture. Several new sectors are added as well: finance and other services, health and social protection, and water management.

*Table 3*

ACTIVE POPULATION IN THE COUNTRY BY ACTIVITIES  
 AND GENDER 1991

Activity	Total	Male	Female
industry and mining	491 709	292 532	199 177
agriculture and fishery	251 736	145 444	106 292
forestry	13 380	11 612	1 768
water management	5 394	4 673	721
construction	98 150	84 264	13 886
traffic and connections	119 949	97 982	21 961
trade	163 002	70 437	92 565
catering and tourism	80 718	36 112	44 606
crafts and personal services	120 866	76 176	44 690
housing and communal services and landscaping	27 274	21 661	5 613
finance, technical and business services	60 350	26 353	33 997
education, science, culture and information	105 721	41 555	64 166
health care and social care	103 166	21 862	81 304
state bodies, local self-government bodies, foundations, associations and organizations	105 821	64 201	41 620
unknown	63 854	40 434	23 420
<b>TOTAL</b>	<b>1 811 084</b>	<b>1 035 298</b>	<b>775 786</b>

Source: 1991 Census, Central Bureau of Statistics, Zagreb, Documentation 885.

In 1991 census, the crafts and personal services are merged under a single category. Housing and communal services include landscaping, finance and other services are called finance, technical and business services, science and information are joined to education and culture, and health and social protection have been renamed to health care and social care. The socio-political organization and booths is changed into state bodies, local self-government bodies, foundations, associations and organizations, marking the shift away from socialist nomenclature.

Table 4

ACTIVE POPULATION IN THE COUNTRY BY ACTIVITIES  
ND GENDER 2001

Activity	Total	Male	Female
manufacturing	286 991	174 418	112 573
mining	6 006	5 224	782
agriculture, hunting and forestry	171 234	99 545	71 689
fishery	4 028	3 750	278
electricity, gas and water supply	24 887	20 065	4 822
construction	92 635	83 936	8 699
transportation, storage and connections	104 557	81 902	22 655
whole sale and retail; repair of motor vehicles and personal and household goods	193 545	89 394	104 151
hotels and restaurants	80 764	35 503	45 261
real estate, renting, business services	74 522	35 302	39 220
financial intermediation	32 498	9 746	22 752
education	79 862	20 148	59 714
health care and social care	81 408	17 644	63 764
other community, social and personal service activities	50 607	25 260	25 347
private households with employed staff	2 905	116	2 789
public administration and defense; compulsory social security	120519	77 645	42 874
extra-territorial organizations and bodies	650	293	357
unknown activity	22 157	12 601	9 556
<b>TOTAL</b>	<b>1 429 775</b>	<b>792 492</b>	<b>637 283</b>

Source: Population census of 2001, Zagreb, Central Bureau of Statistics, electronic edition, [www.dzs.hr/Hrv/Census](http://www.dzs.hr/Hrv/Census), Table 9: "Persons employed older than 15 years of age by gender, activity of the highest school graduated".

In the 2001 census, mining became a separate category, industry is turned into manufacturing, agriculture, hunting and forestry are combined together, while fisheries are separated out. The water management is expanded to the supply of electricity, gas and water, whereas transport and connections are added to storage. Trade is expanded into wholesale and retail trade and technical services, and craftsmanship is not a separate activity any more. Instead of catering and tourism, these activities are now registered as hotels and restaurants. The housing and communal services become real estate, renting and business services, while financial services are presented as a separate activity, i.e. financial intermediation.

Education is added to health care, and other societal, social and personal service activities are combined together. Government bodies, local governments, funds, associations and organizations are listed under the category of public administration, defence and compulsory social security. Newly added activities include extra-territorial organizations and bodies, and private households with employed staff.

*Table 5*

ACTIVE POPULATION IN THE COUNTRY BY ACTIVITIES  
AND GENDER 2011

Activity	Total	Male	Female
manufacturing	254 113	166 686	87 427
mining and quarrying	7 772	6 575	1 197
agriculture, forestry and fisheries	79 830	54 665	25 165
electricity, gas, steam and air conditioning	16 505	12 951	3 554
water supply, wastewater disposal, waste management and environmental sanitation	22 671	18 265	4 406
construction	114 881	103 482	11 399
transportation and storage	90 382	73 551	16 831
wholesale and retail trade, repair of motor vehicles and motorcycles	236 262	102 050	134 212
accommodation, food preparation and service activities	91 712	41 991	49 721
real estate business	5 222	2 685	2 537
financial and insurance activities	45 602	14 435	31 167
education	105 927	24 314	81 613
health and social work	101 561	20 533	81 028
other service activities	29 679	10 569	19 110
administrative and support service activities	39 256	22 519	16 737
employed in household activities, activities of households producing different goods and providing different services for their own needs	1 680	80	1 600
arts, entertainment and recreation	26 853	12 763	14 090
professional, scientific and technical activities	64 041	30 194	33 847
information and communications	42 128	26 618	15 510
public administration and defence, compulsory social security	123 037	63 958	59 079
activities of extra-territorial organizations and bodies	626	289	337
Unknown	4 127	2 390	1 737
<b>TOTAL</b>	<b>1 503 867</b>	<b>811 563</b>	<b>692 304</b>

Source: Population Census 2011. Population aged 15 and over by current activity, age and sex, [www.dzs.hr](http://www.dzs.hr) (visited 4/1/2019).

In the 2011 census, fisheries are categorised under agriculture and forestry, Electricity and gas supply, steam supply and air-conditioning were added, as well as a separate category for water supply that was renamed wastewater disposal, waste management and environmental activities. The transport and warehousing no longer includes connections, hotels and restaurants have been renamed to accommodation, food preparation and service activities. Financial intermediation has been renamed financial and insurance activities and other service activities now include all social and personal services but exclude administrative and additional services. Private households with employed staff have been expanded to include households as an employer, households producing different goods and providing different services for their own needs. Arts, entertainment and recreation as well as professional, scientific and technical activities were separately classified, and a completely new category for information and communication activities is introduced. Public administration, defence and compulsory social security are added as well.

Since the categorization and classification of activities has changed significantly in the analysed period, it is difficult to compare them directly. Therefore, frequent changes justify aggregating data up to the primary, secondary and tertiary sectors. However, there is some migration of activities, even at the aggregated level. The crafts industry / crafts in 1971 and 1981 were added to the secondary sector in 1991. In 2001 part of crafts are engaged in agriculture and are therefore included in the primary sector. Furthermore, small business-producers are included in the secondary sector and technical service personnel and personal services in the tertiary sector.

Table 6

SECTORS BY INDUSTRY FROM 1971 TO 2011

SECTORS	1971	1981	1991	2001	2011
PRIMARY	AGRICULTURE AND FISHERIES	AGRICULTURE AND FISHERIES	AGRICULTURE AND FISHERIES	AGRICULTURE, HUNTING AND FISHERIES	AGRICULTURE, FORESTRY AND FISHERIES
	FORESTRY	FORESTRY	FORESTRY	FISHERY	ELECTRICITY, GAS, STEAM AND AIR CONDITIONING
		WATER MANAGEMENT	WATER MANAGEMENT	ELECTRICITY, GAS AND WATER SUPPLY	WATER SUPPLY, WASTE WATER REMOVAL, WASTE MANAGEMENT AND ENVIRONMENTAL ACTIVITIES
SECONDARY	INDUSTRY AND MINING	INDUSTRY AND MINING	INDUSTRY AND MINING	MANUFACTURING	MANUFACTURING
	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	MINING	MINING AND EXTRACTION
	HANDICRAFTS	CRAFTS		CONSTRUCTION	CONSTRUCTION
TERTIARY	TRAFFIC	TRAFFIC AND CONNECTIONS	TRAFFIC AND CONNECTIONS	TRANSPORTATION, STORAGE AND CONNECTIONS	TRANSPORTATION AND STORAGE
	TRADE AND HOTELS	TRADE	TRADE	HOLESAL AND RETAIL; REPAIR OF MOTOR VEHICLES AND PERSONAL HOUSEHOLD GOODS	WHOLESALE AND RETAIL TRADE, REPAIR OF MOTOR VEHICLES AND MOTORCYCLES
		CATERING AND TOURISM	CATERING AND TOURISM	HOTELS AND RESTAURANTS	ACTIVITIES OF PROVIDING ACCOMMODATION AND FOOD PREPARATION AND SERVICE

SECTORS	1971	1981	1991	2001	2011
TERTIARY	RESIDENTIAL AND COMMUNAL ACTIVITIES	RESIDENTIAL AND COMMUNAL ACTIVITIES	RESIDENTIAL AND COMMUNAL ACTIVITIES AND DEVELOPMENT OF SETTLEMENTS AND SPACES	REAL ESTATE, RENTAL, BUSINESS SERVICES	REALESTATE
		FINANCE AND OTHER SERVICES	FINANCE, TECHNICAL AND BUSINESS SERVICES	FINANCIAL INTERMEDIATION	FINANCIAL AND INSURANCE ACTIVITIES
	CULTURE AND SOCIAL ACTIVITY	EDUCATION AND CULTURE	EDUCATION, SCIENCE, CULTURE AND INFORMATION	EDUCATION	EDUCATION
					PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES
					ARTS, ENTERTAINMENT AND RECREATION
					INFORMATION AND COMMUNICATIONS
		HEALTH AND SOCIAL PROTECTION	HEALTH CARE AND SOCIAL WELFARE	HEALTH CARE AND SOCIAL WELFARE	HEALTH CARE AND SOCIAL WELFARE ACTIVITIES
		CRAFTS AND PERSONAL SERVICES		OTHER SOCIAL, SOCIAL AND PERSONAL SERVICE ACTIVITIES	OTHER SERVICE ACTIVITIES
	ACTIVITIES OF SOCIAL AND PUBLIC SERVICES	SOCIAL-POLITICAL ORGANIZATIONS. AND SIZs	GOVERNMENT BODIES, LOCAL GOVERNMENT BODIES, FUNDS, ASSOCIATIONS AND ORGANIZATIONS	PUBLIC ADMINISTRATION AND DEFENSE; COMPULSORY SOCIAL SECURITY	PUBLIC ADMINISTRATION AND DEFENSE, COMPULSORY SOCIAL SECURITY



SEC-TORS	1971	1981	1991	2001	2011
TERTIARY					ADMINISTRATIVE AND SUPPORTING ASSISTANCE SERVICES
				PRIVATE HOUSEHOLDS WITH EMPLOYEES	HOUSEHOLD ACTIVITIES AS EMPLOYER, HOUSEHOLDS ACTIVITIES PRODUCING DIFFERENT GOODS AND PROVIDING DIFFERENT SERVICES FOR OWN NEEDS
	OTHER ACTIVITIES			EXTRA-TERRITORIAL ORGANIZATIONS AND BODIES	ACTIVITIES OF EXTRA-TERRITORIAL ORGANIZATIONS AND BODIES

Source: Part of the table from 1971 to 2001 was published in: *Peračković, K. (2011) Croatia in the Postindustrial Age – Changes in the Structure of Economic Activities of Working Population by Gender*. Društvena istraživanja, 20 (1): p. 92. Data for 2011 are from the website: [www.dzs.hr](http://www.dzs.hr) (visited 1.4.2019).

#### 4. RESULTS AND DISCUSSION

The Figure 1 shows the structure of production sectors in percentages of active population<sup>8</sup> that performs the *activity* on the basis of the last three censuses (Figures 2 and 3 show disaggregation by gender). All sources of relative numbers in figures (%) are derivated from absolute numbers in tables 1-5 above.

<sup>8</sup> In population censuses, an economically active population in the narrow sense means a population that is, at the time of the census, an active population, that is, a population that is in the labour market, hence its called labour force. In previous censuses, the population that was employed in an activity at the time of the census was referred to as the active population engaged in the activity and was not classified as under employed and unemployed categories. According to the methodological notes of the Census 2011 of the Central Bureau of Statistics, currently active population or labour force include: a) employed and b) unemployed persons classified by economic activity in the reference week (Source: 2011 Census Population aged 15 and over by current activity, age and gender, [ww.dzs.hr](http://ww.dzs.hr). Visited 10/10/2019). Therefore, we can compare the data relating to the active population from the 1971 and 1981 Censuses with the more recent censuses from 1991 onwards, only when they enter this category as employed individuals.

Figure 1

CHANGES IN THE STRUCTURE OF ECONOMIC ACTIVITIES  
 BY SECTORS FROM 1971 TO 2011 (%)

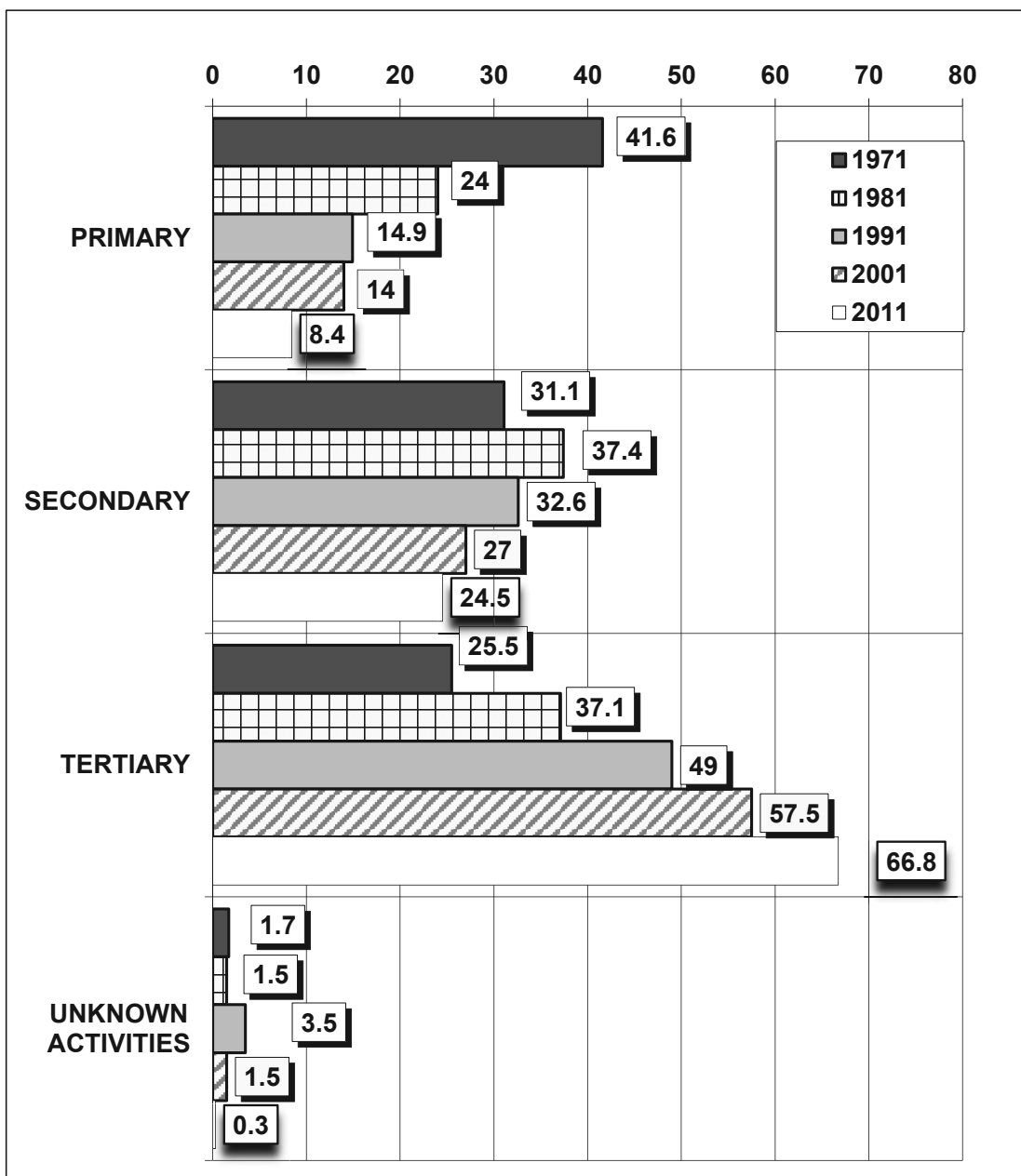


Figure 2

CHANGES IN THE STRUCTURE OF ECONOMIC ACTIVITIES OF WOMEN BY SECTORS FROM 1971 TO 2011 (%)

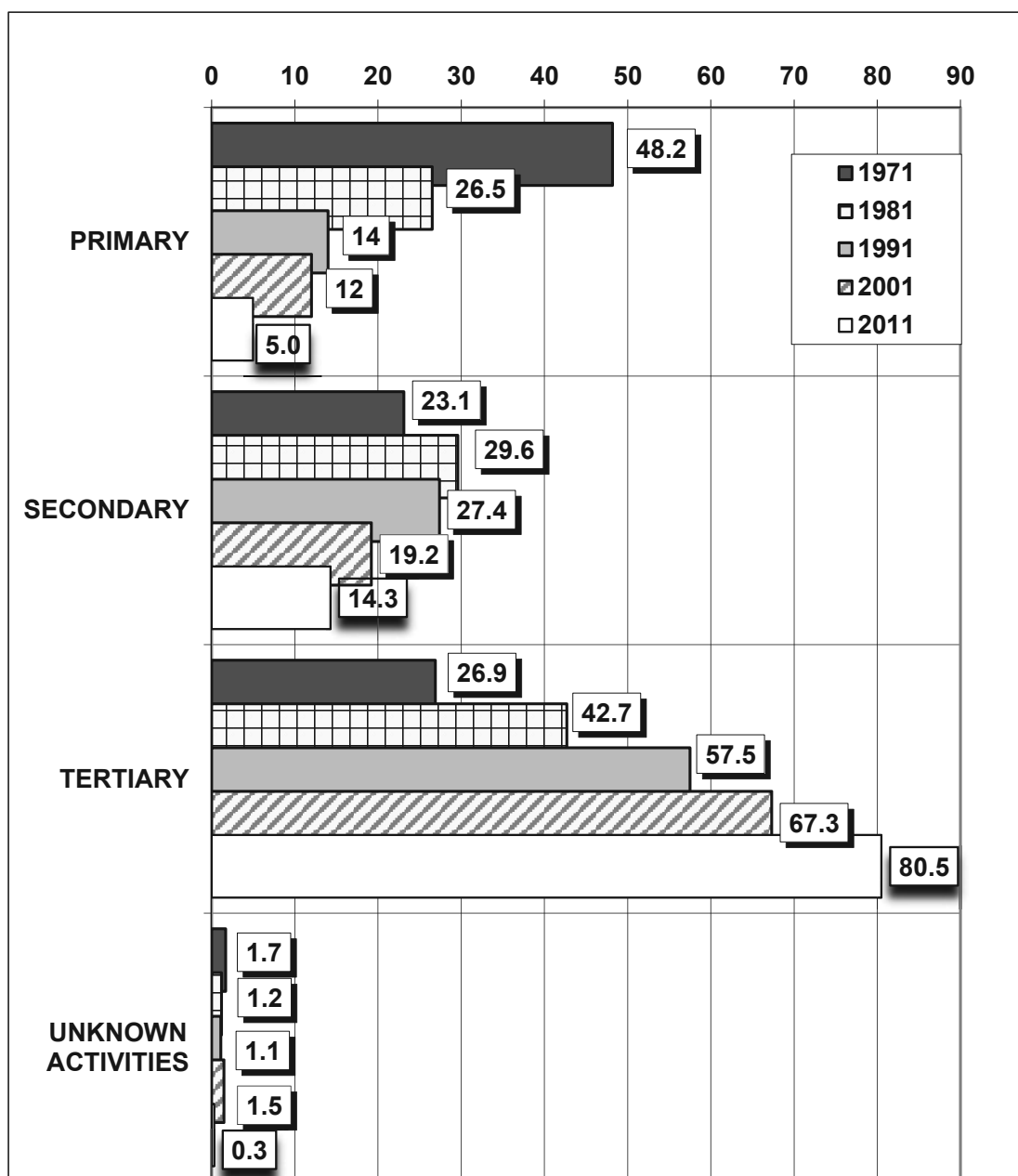
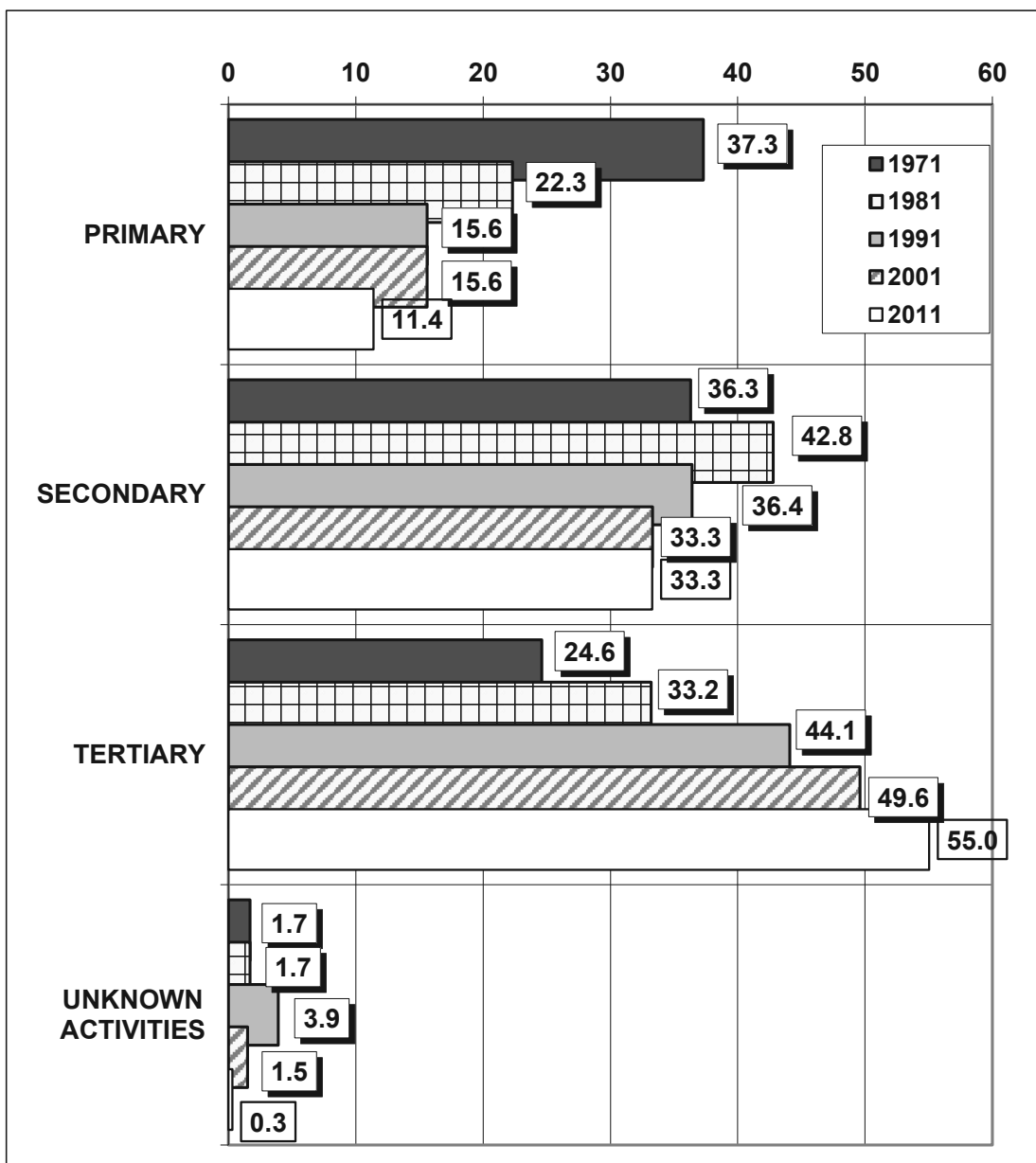


Figure 3

CHANGES IN THE STRUCTURE OF ECONOMIC ACTIVITIES OF MEN  
BY SECTORS FROM 1971 TO 2011 (%)



The data shows that the tertiarization process in Croatia already began in early 1970s. As the analyses of earlier census periods show (Wertheimer-Baletić 1991; Peračković, 2011), this structural shift over a forty-year period from 1971 to

2011 was accompanied by the radical deagrarization, i.e. 41.6% to 8.4% decrease in the share of the primary sector. The largest decline in the primary sector size occurred between 1971 and 1981, when its working population share decreased to 24% and continued to decline to 14.9% in 1991. The smallest change occurred from 1991 to 2001, when the share fell to 14%, followed by the further decline to only 8.4% in 2011.

The share of women in the primary sector in 1971 was 48.2% followed by the significant decrease in 1981 when the share was 26.5%. In 1991, this share declined even more to 14%, in 2001 to 12%, and finally settled at 5% in 2011. In 1971, the proportion of men in the primary sector was 37.3%, 11% less than the share of women, and decreased significantly to 22.3% in 1981. Men's share continued to decline to 15.6% in 1991 and remained about the same until 2001, after which it dropped again to 11.4% in 2011. This indicates that deagrarization process intensified after the short stabilization period in 1990s, especially for women.

The share of the secondary sector in 1971 was 31.1%, in 1981 it increased to 37.4%, in 1991 it dropped to 32.6%, and continued falling further during the transition and post-transition period to 27% in 2001 and to 24.5% in 2011. The share of women in the secondary sector in 1971 was 23.1%, followed by an increase to 29.6% in 1981, and a fall to 27.4% in 1991. In 2001 it dropped significantly to 19.2% and further decreased to 14.3% in 2011. The share of men in the secondary sector was 36.3% in 1971 and rose to 42.8% in 1981. The most significant decline, i.e. de-industrialization in men working cohort, occurred in the last decade of socialism, when it further decreased to 36.4% in 1991. The decrease in share to 33.3% was observed in 2001 and remained the same in 2011, so it can be concluded that the process of de-industrialization stopped, as opposed to deagrarization. It is important to point that the fall in the secondary sector share began already in 1980s, i.e. between 1981 and 1991. This trend continued from 1990s into the first decade 2000s, but surprisingly, the proportion of men in the secondary sector declined twice as much between 1981 and 1991 (6.4%), compared to the transition period between 1991 and 2001 (3.1%). In contrast, the share of women in the secondary sector decreased only by 2.2%, in the period from 1981 to 1991, but by 2001 this share fell by as much as 8.2%.

The process of industrialization was completed by the early 80's, and the process of de-industrialization has begun. Deindustrialization process in 1990s was significantly influenced by several new factors: aggression on Croatia and production interruption in industrial cities along the edge of the occupied territories; loss of the former Yugoslav market, transformation (1991) and privatization (1996) of the social / state manufacturing sector, the introduction of information technology that replaces the workforce in the process of industrial production, globalization of the markets as well as the tertiarization momentum driven by increased demand for existing services and the emergence of new services (Peračković, 2011).

The relative increase of the tertiary sector share was highest compared to other sectors, from 25.5% in 1971 to 66.8% in 2011, an increase of 2.5 times in the last 40 years. It is interesting to note that this increase has been mostly constant and follows similar, stepwise growth in each inter-census period: in 1981 it was 37.1%, in 1991 it was 49%, in 2001 it was 57.5% and at the end of last census 66.8%. More than half of the working population is currently employed in the tertiary sector.

The growth of women's share in the tertiary sector is even more evident: in 1971 the share was 26.9% and by 1981 it grew to 42.7%, making women dominantly represented in the tertiary sector. This growing trend continued in 1991, reaching the share of 57.5%, and increased to 67.3% by 2001. The growth was also sustained in the last decade, reaching the share of 80.5% in 2011, which means that more than 2/3 of women are employed today in the tertiary sector, an increase of 53.6% in 40 years! The trends for men's share also show increasing trends, from 24.6% in 1971 to 33.2% in 1981. In the period up to 1991, this share increased significantly to 44.1%, and although the growth continued through the 1990s, it was not so intensive, and reached 49.6% in 2001. The increase continued in 2011, reaching a 55% share. The total increase for men from 1971 to 2011 is therefore 30.5%, which is significantly less than for women.

We can say that the processes of tertiarization and de-industrialization take place in Croatia simultaneously and are related through the outflow of labour from the secondary to the tertiary sector. This has similarities with the labour outflows from primary to the secondary sector, i.e. the parallelism of the process of deagrarization and industrialization. Our analysis shows that the process of tertiarization, defined as an increase in the share of the working and employed population in the service sector, is a continuous long term process, influenced by different factors in different periods, and mostly the ones that have accelerated the process of de-industrialization in the past.

## 5. CONCLUSION

The analysis of the presented data on changes in the structure of economic activities in Croatia showed that in addition to deagrarization, which began in the 60s and has grown in the 70s of the 20th century, the gradual processes of deindustrialization and tertiarization also began simultaneously during the 70s and intensified in the 80s especially among women population. Therefore, both of our hypotheses can be accepted. The underlying factors that drive these processes during the observed period can be summarized and categorized as follows: 1) demographic change – the growing proportion of the elderly is increasing the demand

for number of services, especially in the field of health and social care; 2) technological modernization – due to mechanization, automatization and computerization in industrial production, demand for NKV, PKV and KV professions is decreasing, leading to the so-called technological surpluses or deindustrialization; 3) education – compulsory primary education as well as an increase in the share of secondary education increased the demand for educational services, but also to an even greater increase of the number of women in the labour market, which increases demand for those services previously done by women in the household; 4) the process of marketization of society and transition to a capitalist economy, as well as commodification process where more and more material goods and *interpersonal relationships*, i.e. services, become goods on the market; 5) global economy – relocation and outsourcing of industrial production to countries with cheaper labour as China, for example; 6) the consequences of war and transition – the social and economic consequences of the Homeland War, as well as the consequences of transformation and privatization, which also reduced possibilities for development and economic restructuring and further accelerated the already on-going deindustrialization; 7) growing consumer society – the traditional tendency for overconsumption of Croatian citizens has been further reinforced by the massive opening of retail chains that increase demand for service sector jobs. So we consider that those insights about mentioned factors of tertiarization process are also certain assessment of this article and may contribute to economic science as well as this analysis of data and the results. Also, the contribution of this paper is at the same time the collection and presentation of a new set of data combined in one article from several sources, which can be the basis for some further research. The main limitation of our review article is fact that those results are just a fundamental but necessary step for some further analyses, but we can't answer the question based on those results why tertiarization process itself are sufficient factor of economic development. For wider framework it has to be included more econometric data of sector's dynamic in some future research.

Our results show that Croatia has a postindustrial structure of production sectors comparable to some of the most developed countries since 1970s, making it a service society. The growth of the tertiary sector and long-term deindustrialization made radical changes in the socio-economic structure of Croatian society. However, unlike the most developed postindustrial societies in which services were driving growth and development, the process of tertiarization in Croatia has not brought about the same developmental effects, but this paper can't argue about the reasons. Therefore, we can conclude that the process of tertiarization is not in itself a sufficient factor of development and in Croatian case and does not necessarily signify a new modernization and developmental shift, but further points to the peripheral position of Croatia within the European Union. Unfortunately, we do not see any serious economic reform, which could provide significant possibilities for

changing this trend in the domains of demographic, political or economic sphere in the near future.

## REFERENCES

1. Abercrombie, S., Hill, B. and Turner, N. (2008). *Rječnik sociologije*, Zagreb: Jesenski i Turk.
2. Akrap, A. (2011). "Sektor zaposlenosti žena i fertilitet u Hrvatskoj", *Društvena istraživanja*, Vol. 20, No. 1, pp. 3-23.
3. Baletić, Z. (1998). "Zaposlenost u postindustrijskom društvu", *Ekonomski pregled*, Vol. 49, No. 9/10, pp. 886-898.
4. Bara, M., Podgorelac, S. (2015). "Društvene teorije umirovljenja i produktivnog starenja", *Etnološka tribina: Godišnjak Hrvatskog etnološkog društva*, Vol. 45, No. 38, pp.58-71.
5. Bell, D. (1999). *The Coming of Postindustrial-Society: A Venture in social Forecasting*, New York: Basic Books.
6. Castells, M. (2000). *Uspon umreženog društva*, Zagreb: Golden Marketing.
7. Clark, C. (1957). *The Conditions of Economic Progress*, London: Macmillan.
8. Cohen, S. S., Zysman, J. (1987). *Manufacturing Matters: The Myth of the Post-industrial Economy*, New York: Basic Books.
9. Cohen, D. (2009) *Three lectures on post-industrial society*, Cambridge, MA: The MIT press.
10. Eatwell, J., Milgate, M., Newmen, P. (1987). *The New Palgrave: A Dictionary of Economics*, London: Palgrave Macmillan.
11. Fisher, I. (1939). "Production, primary, secondary and tertiary", *Economic Record*, Vol. 15 (June), pp. 24-38.
12. Friganović, M. A. (1990). *Demogeografija – Stanovništvo svijeta*, Zagreb: Školska knjiga.
13. Fuchs, V. R. (1968). *The Service Economy*, New York: National Bureau of Economic Research.
14. Gelo, T. i Družić, M. (2015). "Ukupna faktorska produktivnost sektora hrvatskoga gospodarstva", *Ekonomski misao i praksa*, Vol. 24, No. 2, pp. 327-344.
15. Gelo, T. i Družić, M. (2016). "Sektorska struktura gospodarstva Hrvatske", In: Obadić, A. i Tica, J. (ur.), *Gospodarstvo Hrvatske*, Zagreb: Ekonomski fakultet Sveučilišta u Zagrebu, pp. 41-85.



16. Gershuny, J. i Miles, I. (1983). *The New Service Economy*, London: Frances Pinter.
17. Gjivoje, D. (2008) "Kamo vode današnje strategije programa vrijednosti na turističkom tržištu?" *Acta turistica nova*, Vol. 2, No. 1, pp. 25-49.
18. Hirschhorn, L. (1988). "The Postindustrial Economy: Labour, Skills, and the New Mode of Production" *The Service Industries Journal*, Vol. 8, pp. 19-38.
19. Kumar, K. (1986). *Prophecy and Progress-The Sociology of Industrial and Post-industrial Society*, London: Penguin Group.
20. Jovančević, R. (1997). "Porast značenja usluga u svjetskom gospodarstvu", *Tourism and hospitality menagement*, Vol. 3, No. 1, pp. 53-56.
21. Matković, T. (2003). "Restrukturiranje rada? Transformacija strukture zaposlenosti", *Revija za socijalnu politiku*, Vol. 10, No. 2, pp. 161-184.
22. Majetić, F. (2015). *Zagreb u postindustrijsko doba*, Zagreb: Institut društvenih znanosti Ivo Pilar.
23. Nejašmić, I., Toskić, A. (2013). "Starenje stanovništva u Hrvatskoj – sadašnje stanje i perspektive" *Hrvatski geografski glasnik*, Vol. 75, No. 1, pp. 89 –110.
24. Nejašmić, I. (2005). *Demogeografija – Stanovništvo u prostornim odnosima i procesima*, Zagreb: Školska knjiga.
25. Peračković, K., Pokos, N. (2015). "U starom društvu – neki sociodemografski aspekti starenja u Hrvatskoj" *Društvena istraživanja*, Vol. 24. No. 1, pp. 89-110, <https://doi.org/10.5559/di.24.1.05>
26. Peračković, K. (2011). "Hrvatska u postindustrijsko doba – obilježja promjena u strukturi aktivnog stanovništva Hrvatske po sektorima djelatnosti i spolu", *Društvena istraživanja*, Vol. 20, No. 1, pp. 89-110.
27. Peračković, K. (2010). *(Za)što raditi u postindustrijskom društvu? – Promjene u društvenoj podjeli rada na početku 21. stoljeća*, Zagreb: Alinea i Institut društvenih znanosti Ivo Pilar.
28. Puljiz, V. (2000). "Starenje stanovništva Europe. Dokumentacija", *Revija za socijalnu politiku*, Vol. 7, No. 1, pp. 109-112.
29. Rogić, I. (2000). *Tehnika i samostalnost*, Zagreb: Hrvatska sveučilišna naklada.
30. Schettkat, R., Yocarini, L. (2003). "The Shift to Services: A Review of the Literature", *IZA Discussion Papers* Vol. 964, Institute of Labor Economics (IZA).
31. Švob-Đokić, N., Primorac, J., Jurlin, K. (2008). *Kultura zaborava – industrijalizacija kulturnih djelatnosti*, Zagreb: Jesenski & Turk, Hrvatsko sociološko društvo.
32. Toffler, A. (1981). *The third wave*, New York: Bantam books.

33. Webster, F. (2006). *Theories of the information society* New York: Routledge.
34. Wertheimer-Baletić, A. (1978). *Ekonomska aktivnost stanovništva – demografski aspekti*, Zagreb: Školska knjiga.
35. Wertheimer-Baletić, A. (1991). *Promjene u ekonomsko-socijalnoj strukturi stanovništva Hrvatske u poslijeratnom razdoblju*. Zagreb: Ekonomski fakultet, Institut za ekonomska istraživanja.
36. Wertheimer-Baletić, A. (1999). *Stanovništvo i razvoj*, Zagreb: MATE.

#### PROCES TERCIJARIZACIJE U HRVATSKOJ – DUGOROČNE PROMJENE U STRUKTURI PRIVREDNIH DJELATNOSTI PREMA SEKTORIMA

##### Sažetak

U ovom se radu analizira strukturna promjena gospodarskih sektora u cjelini a posebno proces tercijarizacije za razdoblje 1971–2011. u Hrvatskoj. Polazi se od klasične ekonomske teorije rasta uslužnog sektora uz demografski pristup, korištenjem podataka popisa stanovništva za analizu dugoročnih promjena i trendova u sektorskoj strukturi. Proces tercijarizacije je najčešće definiran kao povećanje udjela zaposlenog stanovništva u uslužnom sektoru, a glavna je teza u radu da je kao kontinuirani dugoročni proces bio pod utjecajem različitih čimbenika u različitim razdobljima, uglavnom onih koji su istovremeno ubrzali proces deindustrijalizacije. Rezultati analize potvrđuju strukturnu promjenu koja ukazuje na rast uslužnog sektora tijekom čitavog promatranog razdoblja, a ne samo u zadnja tri desetljeća tranzicijska razdoblja uz istodobno smanjenje udjela poljoprivrednog i industrijskog sektora. Glavno ograničenje jest činjenica da su ti rezultati tek osnovni ali nužni korak utemeljen na demografskoj statistici koja daje elementarne uvide korisne za daljnje analize. Znanstveni je doprinos ovog rada u interdisciplinarnom pristupu teorijskom konceptu te obrazloženju različitih čimbenika i obilježja procesa tercijarizacije u Hrvatskoj od 1970ih. Rezultati također nameću daljnje pitanje je li taj proces praćen ekonomskim rastom i razvojem kao u razvijenijim zemljama ili taj prijelaz prema društvu usluga sa postindustrijskom podjelom rada nije donio očekivane učinke modernizacije i razvoja.

Ključne riječi: sektori privrednih djelatnosti, usluge, uslužne djelatnosti, tercijarizacija, deindustrijalizacija, deagrarizacija