

# THE DIGITAL ASPECTS OF RECOVERING AND REBALANCING

- 1) The Big Picture on Digital Growth
- 2) The Role of Digital Dimension on Economic Recovery of Greek Economic Restructuring
- 3) Good Practices on E-Services Including E-Education/Training and Professional Orientation
  - a) Basic E-Learning Activities
  - b) Digital Alliances: Universities – Software Enterprises – Entrepreneurial Sector
  - c) New Tourist Products Based on Internet and Local Events

# The Big Picture on Digital Growth

## Growth Grounds

- a) Growth Pessimism: The technological progress will slow both in Developed and Emerging Economies.
  
- b) Growth Optimism: The fourth industrial revolution is coming → The “intelligent machines” will become perfect substitutes for low + medium skill labor.

# The Big Picture on Digital Growth

## Equity Grounds

- We observe a persistent rise in profits as a share of total income.
- On the other hand, skill-biased technological change increases income inequality.

**The Rising of Productivity, the Income Distribution and the Entrepreneurial Opportunities, will come from the following sources:**

- 1) Reduction in the costs of information.
- 2) Increases in the Timeliness of economically relevant information and decreasing potential resource time.
- 3) Reduction in Transaction Costs.
- 4) Increasing in Resolution and Quality.
- 5) Reduction in the Costs of Market Formation.

De-Verticalization (out-sourcing) of Production and the  
Emerging of Global Added Value Chains

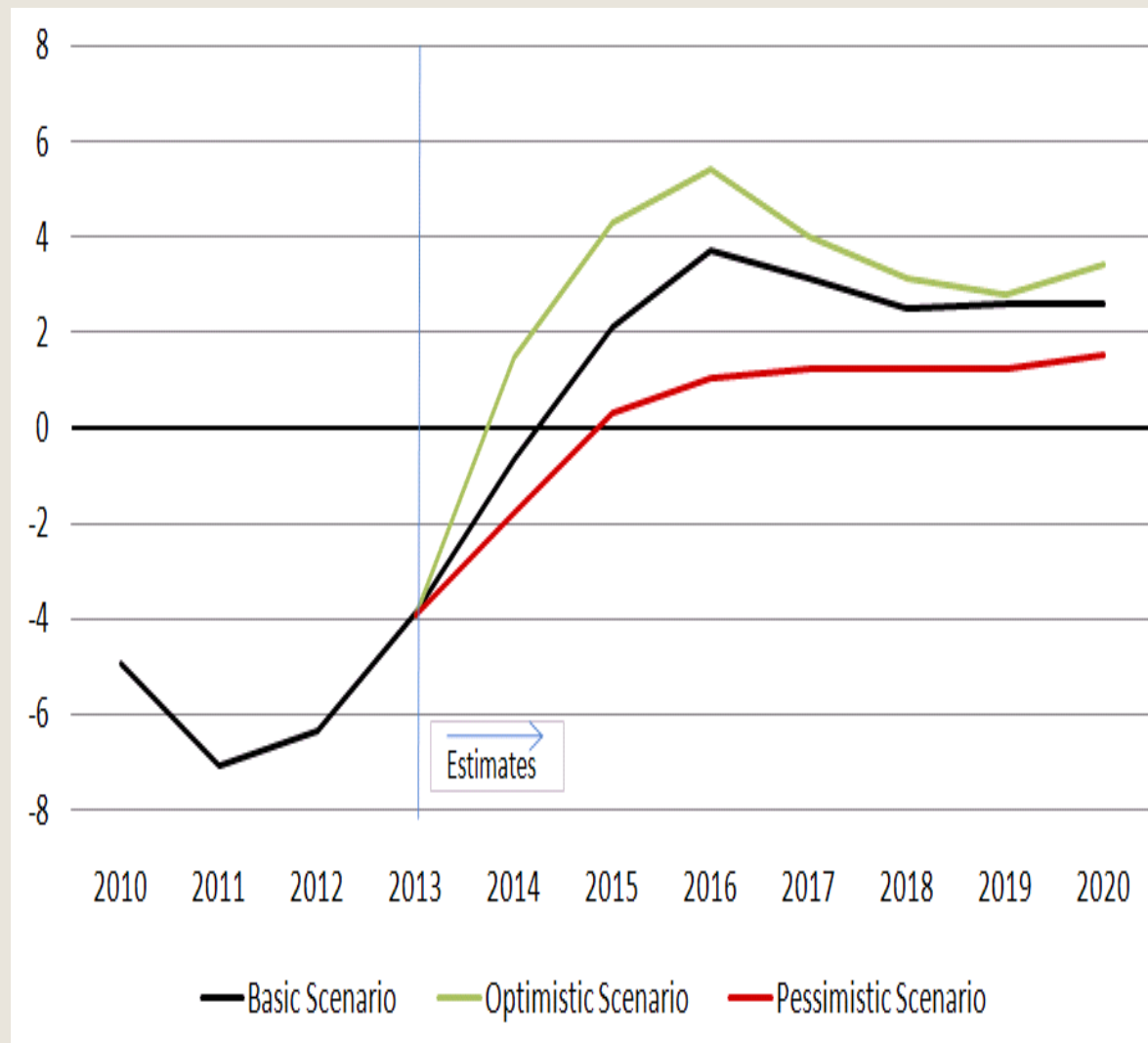


Logistics Development and the  
Supply Chain Development



Globalization

## GDP GROWTH RATES UNDER THE THREE SCENARIOS (%)



Source: Petrakis P.E. "The Rebirth of Greek Labor Market: Building Toward 2020 Following the Global Financial Meltdown", Palgrave MacMillan, (forthcoming 2014).

In a forthcoming work we developed a macro-econometric model for the Greek economy in order to predict medium-term macroeconomic developments. Below the results of predicting medium-term GDP growth performance under three alternative scenarios are reported:

- The *Basic Scenario* is the most likely to come.
- The *Optimistic Scenario* is based on the basic scenario, however a positive -for the economy- 5% change has been applied in all exogenous variables.
- The *Pessimistic Scenario* describes the most unfavorable outcome for the Greek development up to 2020. It is based on the basic scenario, however a negative -for the economy- 2% change has been applied in all exogenous variables.

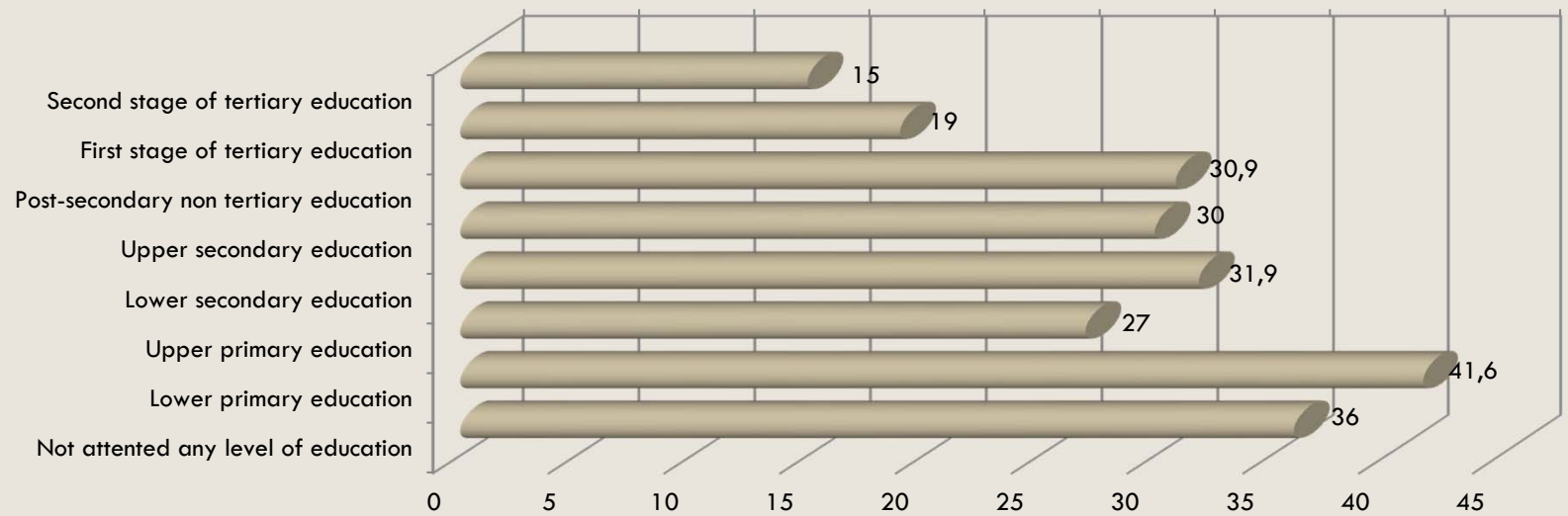
## THE DIGITAL GREEK LABOR MARKET: 2012-2020 (NUMBER OF EMPLOYEES)

International Standard Classification of Occupations (ISCO-08, 3 digit analysis)	Scenarios	2012	2020	Change 2012-2020
133 – Information and communications technology service managers	Basic	3.563	3.601	1,1%
	Optimistic		4.021	12,9%
	Pessimistic		3.423	-3,9%
251 - Software and applications developers and analysts	Basic	16.512	16.873	2,2%
	Optimistic		18.993	15,0%
	Pessimistic		15.888	-3,8%
252 - Database and network professionals	Basic	1.941	1.930	-0,6%
	Optimistic		2.162	11,4%
	Pessimistic		1.900	-2,1%
352 - Telecommunications and broadcasting technicians	Basic	3.084	3.267	5,9%
	Optimistic		3.748	21,5%
	Pessimistic		3.487	13,1%
413 - Keyboard operators	Basic	7.131	6.902	-3,2%
	Optimistic		7.966	11,7%
	Pessimistic		6.775	-5,0%
742 - Electronics and telecommunications installers and repairers	Basic	9.691	10.211	5,4%
	Optimistic		11.666	20,4%
	Pessimistic		9.481	-2,2%
Total	Basic	41.921	42.784	2,1%
	Optimistic		48.555	15,8%
	Pessimistic		40.955	-2,3%

**Source:** Petrakis P.E. “The Rebirth of Greek Labor Market: Building Toward 2020 Following the Global Financial Meltdown”, Palgrave MacMillan, (forthcoming 2014).

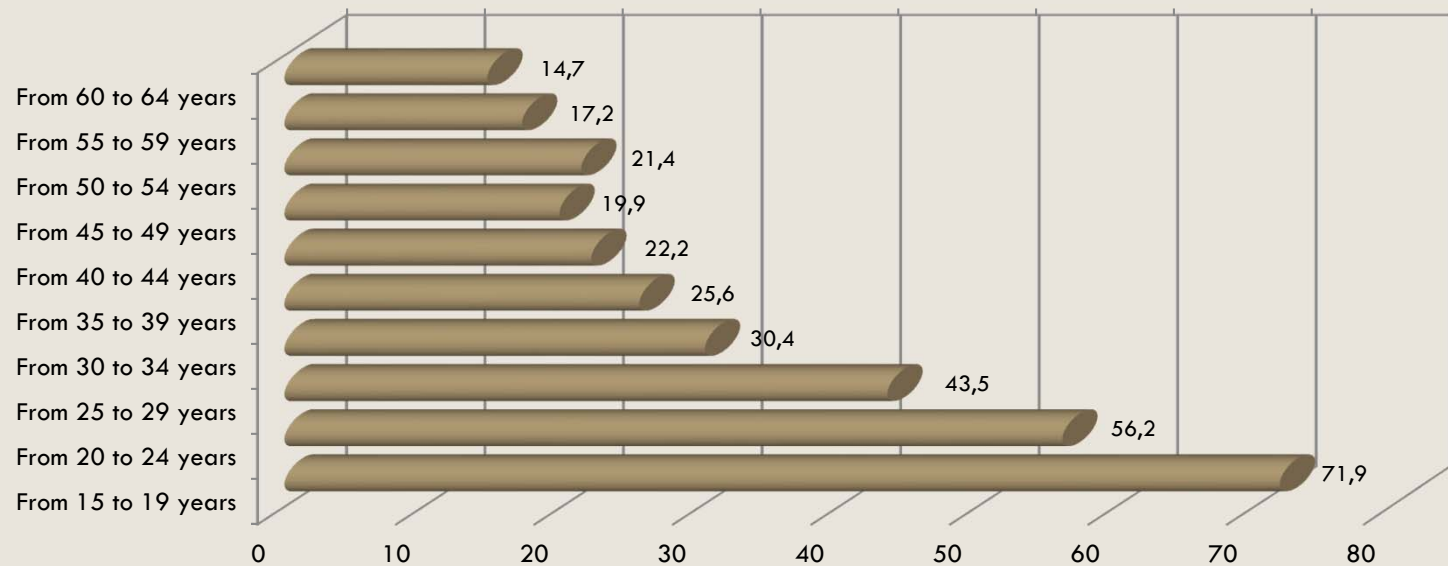
**Note:** The results presented above are based on the macroeconomic model’s outcome for the development of key macroeconomic variables of the economy and the linkages between sectors, based on an input-output analysis (realized through the *Euro method* and the *RAS method* in a robustness test).

## UNEMPLOYMENT LEVEL AND EDUCATION LEVEL (2013Q4)



(Source: EL.STAT.)

## UNEMPLOYMENT LEVEL BY AGE GROUP (2013)



(Source: Eurostat)



## BASIC E-LEARNING ACTIVITIES OF NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS

2001-2013 Statistics	
Applicants	45.000
Graduates	20.000
E-learning Programs/ Courses	200
Academic Fields of Study	28
Academic Supervisors	50
Collaborated Companies	444

## DIGITAL PRACTICE AND EDUCATION (D.P.E.) DIGITAL ALLIANCES IN GREECE (2013-2014)

Programs that combine Theory + Software learning+ Digital practice					
SOFTWARE FIRMS (software learning)		COMPANIES (Digital Practice)		Students	Training Programs
7	Altec	18	Beyond	500	20
			Calin		
	Entersoft		CPI		
			Digalakis		
	Epsilon.net		Esperas		
			Fairfreight		
	Orion		Logika		
			Marina Alimos		
	SingularLogic		Novart		
			Raxevsky		
Softone	Viomal etc				
	Kastaniotis Publications				
Sysco	Stergiou				
	Xaidemenos etc				

# Travel Learning

- Travel Learning based on internet and physical local activities offers (a perfect opportunity to gain) a comprehensive experience of life and study at one of Europe's top universities.
- The Centre of Continuous Education and Learning of the University of Athens offers a unique opportunity to experience some unique aspects of Greek culture and history and how they continue shaping our world.
- Discover the prehistoric past of Greece, travel through the Classical and Hellenistic period and learn more about the birth of theatre and the city, the emergence of science and technology and taste the treasures of Mediterranean diet.
- Combining e-learning training with hands-on activities, students will access some of the world's most fascinating treasures led by our passionate instructors.
- Travel-learning programmes offer an unrivalled cultural experience that will show you the many facets of Greek culture from archaeology and philosophy to nutrition and modern arts.