

ARCHIVES OF ECONOMIC HISTORY

Volume XXXIII

No 1

January – June 2021

ΑΡΧΕΙΟΝ ΟΙΚΟΝΟΜΙΚΗΣ ΙΣΤΟΡΙΑΣ

Τόμος XXXIII

Τεύχος 1

Ιανουάριος – Ιούνιος 2021

CONTENTS - ΠΕΡΙΕΧΟΜΕΝΑ

- S. BERKI – C. TZOVAS: The Prospects of Greek Industry in the Post-Crisis Period:
The Case of Greek Chemical Industry 5
- E. ECONOMOU – N. KYRIAZIS: An Intertemporal Comparison of Monetary
Policy Strategies in Extraordinary Times: The COVID-19 and the Athenian
Plague During the Classical Times 29
- G. ZOGRAFOS: How Far Gastronomical Tourism Could Reach? Evidence From
Greece 47
- K. ANTONIADI: Localisation of the SDGs: Guidelines for Policy-Makers on
Introducing the Sustainable Development Goals to the Local Governance
Scheme 59

ATHENS - ΑΘΗΝΑΙ, 2021

Το «Αρχεῖον Οικονομικῆς Ἱστορίας» δὲν φέρει οὐδεμίαν εὐθύνη γιὰ τὰ δημοσιευόμενα ἀρθρὰ
τὰ ὁποῖα ἐκπροσωποῦν μόνο τὶς ἀπόψεις τῶν συγγραφέων.

ARCHIVES OF ECONOMIC HISTORY

84, Galatsiou Avenue, Athens – 111 46, Greece, tel. +30 210 2934916 / +30 6937 244739
e-mail: akiohos@otenet.gr • www.archivesofeconomichistory.com

Founder

Professor Emeritus Lazaros Th. Houmanidis, University of Piraeus, Greece

Editor-in-Chief / Director

Professor Petros Kiochos, University of Piraeus, Greece

Co-Editor (since 2013)

Assistant Professor Apostolos Kiohos, University of Macedonia, Greece

Associate Editors (since 2013)

- Assistant Professor Auke Leen, Leiden University, The Netherlands
- Professor George Vamvoukas, Athens University of Economics and Business, Greece

Editorial Board (during 1990 - present)

- Professor Emeritus Lazaros Th. Houmanidis, University of Piraeus, Greece
- Professor Petros Kiochos, University of Piraeus, Greece
- Professor Emeritus Aldo Montesano, Bocconi University of Milan, Italy
- Professor Renato Coppi, University of Rome Sapienza, Italy
- Professor George Halkos, University of Thessalia, Greece
- Professor Emeritus Vincent J. Tarascio, University of North Carolina, USA
- Professor Ingrid Rima, Temple University, USA
- Professor Anna Pellanda, University of Padova, Italy
- Professor Kishor Thanawala, Temple University, USA
- Professor Spyros Makridakis, INSEAD, France
- Professor Edgar Ortiz, Universidad Nacional Autonoma de Mexico, Mexico
- Professor Petros Gemptos, Kapodistrian University of Athens, Greece
- Professor Theodore Gamaletsos, University of Piraeus, Greece
- Professor Spyridon Vliamos, Kapodistrian University of Athens, Greece
- Professor Emeritus Theodore Skountzos, University of Piraeus, Greece
- Professor Emeritus Sheila Dow, University of Stirling, England
- Professor Ulrich Witt, University of Jena, Germany
- Professor Basil Yamey, London School of Economics, England
- Professor Thierry Levy, Universite Pierre et Marie Curie, France
- Adjunct Professor Ray Petridis, University of Notre Dame, Australia
- Professor Edward Fullbrook, University of the West of England, England
- Professor Sotirios Karvounis, University of Piraeus, Greece
- Professor Epaminondas Panas, Athens University of Economics and Business, Greece
- Professor Evangelos Samprakos, University of Piraeus, Greece
- Professor Kostas Giziakis, University of Piraeus, Greece
- Professor George Vlahos, University of Piraeus, Greece
- Professor Ioannis Palaiologos, University of Piraeus, Greece
- Professor John Loizides, Athens University of Economics and Business, Greece
- Professor P.Jegadish Gandhi, Vellore Institute of Development Studies, India
- Professor Andreas Nikolopoulos, Athens University of Economics and Business
- Associate Professor Dikaivos Tserkezos, University of Crete, Greece

Managing Editor

Professor Constantinos Zois, University of West Attica, Greece

THE PROSPECTS OF GREEK INDUSTRY IN THE POST-CRISIS PERIOD: THE CASE OF GREEK CHEMICAL INDUSTRY

S. BERKI* C. TZOVAS**

Abstract

Since 2009 Greek economy has experienced a long period of deep recession. This paper investigates the prospects of Greek industrial sector in the post-recession period. We focus on the chemicals sector. We present the profile of two leading companies in the field of plastic manufacturing industry: Plastika Kritis and Thrace Plastics. This study analyses the financial statements of the two companies for the period 2015-2019. In addition, we conduct a SWOT and PESTEL analysis for the two companies in order to highlight the distinctive characteristics of the two companies and their future prospects.

JEL Classification: M40, M41, C40

Keywords: Financial analysis, Chemical Industry, SWOT, PESTEL, Recession.

1. Introduction

Within the last thirteen years, Greece has been suffering a severe economic recession. The present study focuses on two Greek manufacturing companies: Plastika Kritis and Thrace Plastics. Both companies have maintained their position while have grown within the last years. This study is an attempt to examine the factors that contributed to both firms' success in sustaining their position in the Greek market. In addition, we investigate the development prospects of the two companies.

These two firms have a lot of characteristics in common: (a) Both companies were established in the 70' s by Greek entrepreneurs; (b) They have adopted similar policies for expansion throughout acquisition of companies in foreign markets or through establishment of subsidiaries; (c) Their products portfolio is based on the same raw materials (polyethylene-based products) and for some products (especially greenhouse films) the two firms share the same market segment.

* MBA, Hellenic Open University, Greece, e-mail: stellaberki@gmail.com

** Assistant Professor, Department of Accounting and Finance, Athens University of Economics and Business, Greece, e-mail: ctzovas@aueb.gr

Our analysis proceeded in two stages. In the first stage we focus on the financial analysis of the companies. More specifically the financial statements of the two companies for the fiscal years 2015-2019 have been analyzed. In the second stage the two companies have been analyzed by using the tools of SWOT analysis and PESTEL analysis. Despite the deep recession that Greek economy experienced in the previous decade, both companies appear to be in the sound financial position. The findings of SWOT and PESTEL analyses indicate that the emphasis that both companies assign to technological advancement and satisfaction of the changing customers' needs, provide a framework for further development of the two companies both domestically and internationally. This study highlights the factors that contribute to two firms' current success and denotes the possible opportunities and potential threats that the two firms may face in the future. The findings of this study can be beneficial for professionals and economic planners not only of the chemical industry but for the manufacturing sector as whole.

The rest of the paper proceeds as follows. In the second section the findings of the financial ratio analysis are presented. In the third section, we outline the basic elements of the SWOT analysis and present the findings of the SWOT analysis conducted for the two companies. Section four presents the basic elements of the PESTEL analysis and the outcomes of the PESTEL analysis conducted for the two companies. The fifth section summarizes and concludes the paper.

2. Financial ratio analysis

In order to conduct the financial analysis, we analyze the financial statements of the two companies for the period 2015-2019. The following ratios have been calculated:

- **Liquidity ratios** refers to the group of ratios that measure the ability of the company to meet its debts as they come due (Pratt, 2011). Most common liquidity ratios are current ratio, quick ratio, and cash ratio. Net Working Capital Ratio (NWC) is a ratio included in this group as it provides a general indication of an entity' liquidity (Subramanyam, 2014).
- **Profitability Ratios** focus on the company's income or profit. Profitability ratios can be divided into two subcategories: margin ratios and return ratios. Margin ratios represent firm's ability to convert sales into profits and they consist of gross profit margin, net profit margin, operating profit margin, EBITDA margin and cash flow margin (Brealey et al., 2012). The second subcategory, which is return ratios, represent firm's ability to generate

returns to its shareholders. Most commonly used ratios at this subcategory are: Return on Assets, Return on Equity and Return on Invested Capital (Kieso et al., 2016).

- **Efficiency Ratios** is group of ratios that indicates how efficiently a firm employs its resources. Most common ratios to measure efficiency are: Inventory Turnover ratio, Asset Turnover ratio, Average Collection period, Receivables Turnover ratio, Net Working capital turnover ratio, Days Sales in Inventory (Brealey et al, 2012).
- **Leverage Financial Ratios** refer to the group of ratios that present the capital structure of (debt capital as proportion of total capital) and assess the ability of a firm to cover its financial obligations (Damodaran, 2012). Most widely known leverage ratios are: Debt to Assets ratio, Debt to Equity ratio, Debt to Capital ratio, Asset to Equity Ratio, Debt to EBITDA ratio, Times interest earned ratio, Cash Coverage ratio. Table 1 summarizes the results of the ratio analysis for the two companies for the period 2015-2019.

Liquidity Ratios

Current ratio is equation that measures the company's current assets (cash, inventory, and accounts receivable) to its current liabilities. It is argued that a very high current ratio is indicative of a firm that is facing problems reducing its inventory (Damodaran, 2012). Plastika Kritis present a current ratio which is between 4,55–7,42. Meanwhile, inventory turnover ratio it appears steady for the years 2015-2019 (see below). Thus, Plastika Kritis show that inventory selling and replacing inventory activity is effective. On the other hand, Thrace Plastics keep a low current ratio between 0,59 to 0,84, which indicates that current assets may not be used effectively enough.

Quick ratio or Acid-Test ratio includes those assets that are most easily converted to cash and is computed as cash & cash equivalents, marketable securities, and accounts receivables (Subramanyam, 2014). It is the ratio that measures the cash that is available to pay current liabilities of a company. We can see that Plastika Kritis have a rather high quick ratio (above 1 which is considered to be normal quick ratio) within the last five years (fluctuates between 3.51 to 5.75).

Cash ratio is a measure of liquidity ratios that indicates the firm's ability to cover its short-term obligations-debts by the use of cash and cash equivalents. It is a ratio used mostly from creditors. It is a more conservative ratio than other ratios in the same group as it shows company's ability to cover its debts as it strictly sticks to cash and cash-equivalents without including other assets such as accounts receivable (Subramanyam, 2014). Since cash ratio in Plastika

Table 1: Results of Financial Ratio Analysis

Year	2015	2016	2017	2018	2019
Current Ratio					
Formula: Current Ratio = Current Assets / Current Liabilities					
Plastika Kritis	7,05	4,55	4,69	6,05	7,42
Thrace Plastics	0,71	0,70	0,84	0,69	0,59
Quick Ratio or Acid-Test Ratio					
Formula: Quick Ratio = Current Assets-Inventory / Current Liabilities					
Plastika Kritis	5,03	3,51	3,55	4,53	5,75
Thrace Plastics	0,64	0,63	0,84	0,69	0,59
Formula: Cash Ratio = Cash Items / Current Liabilities					
Plastika Kritis	1,35	0,99	1,14	1,77	2,68
Thrace Plastics	0,11	0,07	0,26	0,20	0,04
Formula: Net Working Capital Ratio = Net Working Capital Ratio: Current Assets-Current Liabilities					
Plastika Kritis	76412	83668	84433	91516	98596
Thrace Plastics	-7788	-8109	-3089	-4929	-5246
Formula: Gross Profit Margin = Gross profit Margin: Gross Profit / Net Sales *100					
Plastika Kritis	22%	24%	25%	24%	26%
Thrace Plastics	7%	16%	18%	7%	8%
Formula: Net operating profit Margin = Operating Profit / Turnover *100					
Plastika Kritis	12%	14%	16%	15%	17%
Thrace Plastics	2%	5%	24%	-2%	-12%
Formula: Return on Equity= Net profit (income) after tax / Average of Equity *100					
Plastika Kritis	9%	11%	11%	11%	13%
Thrace Plastics	0,4%	0,2%	23,5%	0,6%	3,2%

Year	2015	2016	2017	2018	2019
Formula: Return on Assets = EBIT / Average Total Assets *100					
Plastika Kritis	11%	12%	13%	12%	14%
Thrace Plastics	0,2%	0,7%	2,0%	-0,1%	-0,7%
Formula: EBITDA Margin = EBITDA / Net sales					
Plastika Kritis	15%	16%	19%	18%	20%
Thrace Plastics	9%	11%	30%	2%	-5%
Formula: Debt to Equity = Total Debt / Total Equity					
Plastika Kritis	19%	24%	19%	13%	11%
Thrace Plastics	39%	39%	28%	24%	26%
Formula: Debt to Assets = Total Debt / Total Assets					
Plastika Kritis	16%	20%	16%	12%	10%
Thrace Plastics	28%	28%	22%	19%	20%
Formula: Debt to Capital ratio = Total Debt / Total Equity + Total Assets					
Plastika Kritis	16%	20%	16%	12%	10%
Thrace Plastics	28%	28%	22%	19%	20%
Formula: Trade Creditors Turnover ratio = Cost of Goods Sold/ Average height of short term liabilities					
Plastika Kritis	6,44	5,87	4,63	5,15	6,40
Thrace Plastics	0,43	0,45	0,21	0,26	0,32
Formula: Inventory Turnover Ratio formula = Cost of Goods sold / Average Inventory					
Plastika Kritis	4,19	4,09	4,26	4,17	4,02
Thrace Plastics	5,64	6,64	5,41	0	0
Formula: Days Sales in Inventory (DSI) = 365 Days / Inventory Turnover Ratio					
Plastika Kritis	87	89	86	87	91
Thrace Plastics	65	55	67	0	0

Year	2015	2016	2017	2018	2019
Formula: Accounts Receivables Turnover Ratio = Sales / Average of Accounts Receivable					
Plastika Kritis	2,9	3,2	3,2	3,1	3,3
Thrace Plastics	2,9	7,9	5,2	1,4	1,8
Formula: Receivables Turnover in Days Ratio = 365 days / Accounts Receivable Turnover ratio					
Plastika Kritis	126	115	113	116	112
Thrace Plastics	126	46	70	267	207
Formula: Asset Turnover ratio = Net Sales / Average Total Assets					
Plastika Kritis	0,80	0,79	0,75	0,71	0,71
Thrace Plastics	0,13	0,14	0,08	0,05	0,06
Formula: Net working capital Turnover ratio = Turnover / Net Working Capital					
Plastika Kritis	1,68	1,88	1,69	1,52	1,47
Thrace Plastics	-1,73	-1,77	-2,60	-0,99	0,85

Kritis for the last five years is on continuous rise (apart from fiscal year 2016) we could conclude that the firm has the ability to cover its debts.

Net working capital is calculated as the difference of current assets minus current liabilities of a company. It is a metric that measures company's liquidity (Brealey et al., 2012). We can check that Plastika Kritis present an accelerating NWC every year, whereas Thrace Plastics depict negative net working capital. Hence, Thrace Plastics current liabilities exceed its current assets. Negative net working capital may derive from early collection of cash but later payment of liabilities. In this case, it does not necessarily mean poor cash flow of the company.

Profitability Ratios

Plastika Kritis' gross profit margin has been steadily increasing from 22% to 25% in years 2015-2017. We see that there is some decrease by 2% in year 2018, however a new increase is seen in 2019 with the highest gross profit

margin of 26%. In the meantime, there is great fluctuation in gross profit margin for Thrace Plastics as it starts with 7% in year 2015 and there is a significant increase –more than double percentage– at 16% and then increasing by 2% in 2017. Thrace Plastics may be affected by intense competition, whereas Plastika Kritis appear to sell well above its production cost.

Net operating profit margin (NOPAT) is the ratio that calculates the company's operating profitability relative to sales (Subramanyam, 2014). NOPAT is an indicator of a well-managed company, thus the higher the ratio is the more efficiently a company is managed. Plastika Kritis present higher proportions of ratio varying from 12% to 17%. Thrace Plastics range from –12% to 24%, which indicates that there are some periods that company is not managed efficiently (fiscal years 2018-2019).

Return on Equity (ROE) metric is calculated to provide information regarding company's profitability in relation to stockholder's equity. Plastika Kritis have maintained a steady ROE over the years 2016-2018 of 11% and exhibits an upward trend for the year 2019 of 13%. Thrace Plastics keep steady ROE by the years 2015-2016 and as for the year 2017 they present a sharp upward trend which ends up in decline in 2018, almost at the same levels as in 2015-2016. In 2019, we can observe a mild increase of 3.2%.

Return on Assets (ROA) is a metric that indicates a company's ability to generate profits by using its assets in efficient ways. Plastika Kritis hold a steady pace of rating which varies between 11% to 14% within the years 2016-2019. However, Thrace Plastics keep a low value of ROA between 0.7% - (-0.7%). Plastika Kritis' metrics present company's ability to convert its investments in assets into profits. Examining Thrace Plastics' metrics, we observe that ROA remains in low levels and ends up decreasing by the years 2018-2019 reaching –0.7%. Negative ROA does not necessarily depict limited ability on management. It could reveal purchase of assets that could generate profits in the future. Considering that Thrace Plastics followed a big business investment plan for acquisition of subsidiaries is presented in 2017, we could justify a falling ROA as of 2017.

EBITDA (Earnings Before Interest, Taxes, Depreciation and Amortization) is a metric that displays a company's profitability based on its operational activity. It depicts how much earnings does a company generate as a percentage of Revenue. Plastika Kritis depict steady increase on EBITDA margin ratio over the years 2015-2019, which reflects company's operating profitability. Plastika Kritis keep an increasing pace of EBITDA. It would be also important to mention that sales exhibit an increasing pattern. It seems that management of the company has adopted a policy of decreasing operational costs closely

while increasing revenues. Thrace Plastics' EBITDA margin varies from 30% as a higher result to -5% as a lower result providing negative EBITDA margin. Negative results on EBITDA indicate that company may not be profitable enough. The factors that could have contributed to the drop of EBITDA margin for the last two years may vary:

- The increased sales expenses, due to the new investments made by the Group.
- Lower selling prices resulting from both the product mix and the more elastic and aggressive pricing policy.
- The negative foreign exchange differences due to the exchange rate EUR/USD and EUR/GBP, which had an impact on raw materials' price.

Leverage Ratios

Debt to Equity ratio measures the relation between debt of the company and total equity. The higher the debt-to-equity ratio is, the higher level of risk for the company. Plastika Kritis debt to equity ratio varies from 11% to 24%, whereas Thrace Plastics debt to equity ratio varies from 24% to 39%.

Debt to Assets is a metric included in leverage ratios and is indicative to the level that debt finances assets instead of equity. If the ratio is high, then the leverage is high which means higher financial risk. Thrace Plastics present higher ratios ranging from 19% to 28% and Plastika Kritis present ratios from 10% to 20%.

Debt to Capital ratio indicates firm's financial structure. The higher the ratio is the higher proportion of debt is used to finance company's operations. Plastika Kritis provide lower ratios (from 10% to 20%) than Thrace Plastics which range from 19% to 28%. Debt to Capital ratio is a helpful metric for investors and creditors as the first ones can examine the financial risk of a company, whereas the second ones examine company's financial conditions in case of granting bank loan.

Efficiency Ratios

Plastika Kritis present a high level of creditors turnover which fluctuates over 5.5 to 6.5. A high ratio indicates that the firm pays off its debts quickly. Thrace Plastics present low ratio of creditors turnover which varies between 0,25 to 0,45 for fiscal years 2015-2019. A low ratio may indicate that suppliers are not paid on time or that the company has negotiated for favorable payment terms that allows debt to be paid in larger time periods.

Plastika Kritis keep a steady inventory turnover ratio within the period 2015-2019, which indicates that the company sells and replaces its inventory,

including raw materials, 4 times per year. Normally an inventory rate between 4 to 6 is a good indicator that restock rate and sales are in balance. Thrace Plastics also present normal rate for the years 2015-2017, which is between 5,4 to 6,6. However there is a great decrease of the rate for the accounting periods 2018-2019 as the company alters its inventory management policy by 2017 and turning it to zero inventory policy.

Days Sales in Inventory is a ratio that indicates the average time that a company need to turn its inventory to sales. Plastika Kritis exhibits higher ratio with values fluctuating between 86-91 days in inventory. Such high ratios may also indicate excess purchase of inventory (excess purchase of raw materials, large volume of products' stock) or that company intensively keeps high inventory levels to meet high clients' demands. Thrace Plastics' ratio range from 0 to 67 days in inventories within financial reporting period. It can be seen that in 2015-2017, ratio remains quite high (55-65 days) while within the years 2018-2019, ratio is presented as zero due to inventory which equals to zero. Such numbers reveal that company has adopted policy of cost minimization targeting to entire sell off its products. We could assume that Thrace Plastics have adopted a "Lean" policy regarding inventory management. Lean inventory management is a philosophy that businesses seem to adopt in recent years which aims to reduction of unnecessary resources, optimization of production and increase customer's satisfaction (Koumanakos, 2008).

Accounts Receivable Turnover ratio, reflects the number of times a company's accounts receivables are collected within specified period. We see that for Plastika Kritis, the ratio remains constant revealing stability regarding collections of accounts receivables, varying from 2,90 to 3,3 in years 2015-2019. For Thrace Plastics the value of the ratio for the years 2018-2019 remains almost unchanged below 2,0.

Receivable Turnover in days ratio, which is also known as average collection period, is a metric providing more specific information regarding exact number of days that it takes a company to collect its credit sales. Plastika Kritis keep a steady pace of collecting credit sales form clients for ranging from 112 to 126 days, which provides customers for almost 4 months of credit limit. Thrace Plastics' measurements show that in 2015, the credit limit for customer was almost 3 months, then in 2016-2017 credit limit period decreases to 2,5 to 3 months. In 2018-2019 the average collection period ranged from 7 to 9 months.

Asset Turnover ratio is the ratio that measures the speed that assets are utilized by the firm. Turnover rates reflect relative productivity of assets, which is the level of sales volume that we derive from each dollar invested in a

particular asset (Subramanyam, 2014). Plastika Kritis exhibits high rates at about 0.8 - 0.71 within the five-year period examined, whereas Thrace Plastics present lower rates with downward trend between 0,14-0,05.

Net working Capital turnover ratio is a ratio that measures how efficiently a company uses its net working capital to generate revenues. Net working capital is computed by the difference between current assets over current liabilities. Plastika Kritis keep a ratio almost above 1.5 for the whole period examined, which varies from 1,47 to 1,88. Thrace Plastics present negative net working capital turnover for the period 2015 till 2018 and in the year 2019 it turns positive with rate 0,85, which is below 1. Negative working capital depicts that firm's current assets are less than current liabilities that can be affected either by decrease of current assets or increase of current liabilities probably through a bank loan.

Overall, both companies present satisfactory levels of performance. Despite the severe economic crisis that Geek economy experienced since 2009, both companies managed to operate profitably and utilize their resources effectively. In the following sections we focus on the future prospects of the companies.

3. SWOT Analysis

SWOT analysis is a key part of the five steps of strategic management process. The five steps encompass strategy planning, implementation and evaluation (Robbins & Coulter, 2012). Strategic management is composed of:

1. Identification of current mission, goals, and strategies – clarification of company vision
2. Data collection and analysis – SWOT analysis
3. Formulation of strategies
4. Implementation of strategies
5. Evaluation of strategies

SWOT analysis is standard part of strategic planning and decision making of a company. SWOT stands for Strengths, Weaknesses, Opportunities and Threats. Strengths and Weaknesses are presented as the internal factors that could affect a business, whereas Opportunities and Threats are considered external factors that could have an impact on a company's operating activity. Strengths include internal capabilities, resources and positive factors that contribute to the company's better service to its customers and achieve its objectives (Robbins & Coulter, 2012). Weaknesses include internal limitations and negative factors that may disrupt company's performance. Opportunities are favorable factors or even trends in the external environment from which a

company may benefit. As for threats, they are unfavorable external factors that may present challenges to performance of a company. (Armstrong & Kotler, 2015)

It is normally presented through a diagram, which analyses business venture by focusing on each of these factors. A SWOT diagram often contributes when trying to decide to embark on a certain venture or strategy by visualizing the positive and negative factors (Hill, 1997).

The aim of SWOT analysis is to select strategies that are consistent with the vision, values, and goals of the organization and that exploit environmental opportunities, counter threats, build on organizational strengths and correct weaknesses. Subsequently, managers draft action plans. (Hill & McShane, 2008). SWOT analysis is a useful tool of assessment that managers adopt to outline positive and negative factors in terms of formulating appropriate strategies at the corporate, business and operating levels of a company.

3.1. Plastika Kritis S.A.

Plastika Kritis S.A. is well-established company in the sector of manufacture of plastic agricultural films and production of masterbatches. The corporate's headquarters are located in Iraklion, Crete, where it was initially established. Plastika Kritis S.A. is one of the most important and dominant producers in the field of plastic films for agricultural use and masterbatches, geomembranes. The company has managed to specialize in the production of KRITILEN masterbatches, KRITIFIL agricultural films, KRITIFLEX geomembranes, KRITISOL polyethylene pipes, KRITISAN recycled plastics, KRITIRES renewable energy.

The company was founded in 1970. Plastika Kritis has been one of the leading European producers in its sector. It consists of six affiliate companies in Poland, France, Romania, Russia, Turkey, China and has established global presence to more than 75 countries. The company keeps its expanding policy by the construction of a new factory in China by the end of 2021. Managers of the company have emphasized on extroversion, innovation, modernization and verticalization of operational activities.

Plastika Kritis has been practicing corporate social responsibility (CSR). The company presents to be socially conscious to community's matters. Plastika Kritis implement corporate social responsibility through diverse activities such as volunteering, philanthropy, ethical labor practices, and environmental care. Some of these activities could be described as staff volunteering to campaigns for local causes, donation of money to social causes for specific

needs, sponsorship to events socially sensitive and community oriented. Moreover, company's environmental policy (plastic recycling and green energy) is another point that suggests that the company is socially accountable (<https://www.plastikakritis.com/en>).

Plastika Kritis has shown remarkable resilience to the abrupt conditions created by the pandemic for the last two years 2020-2021. Company till today ranks in the top seven in Europe in its field showing an international footprint contributing to business' sustainability and long-term value (Skoumbouris, 2021).

Strengths

- **Wide variety of products:** Plastika Kritis is a manufacturing company that produces custom made products in the field of agriculture and as a raw material (masterbatch) for the plastic industry. In the agricultural sector, it aims to serve the needs of the customer considering climate and weather conditions as well as crop necessities that customers request. In masterbatch division, there is also a wide variety of colors and products which can be applicable to the customers need depending on the final application of the plastic. This provides the company with a huge comparative advantage as it excels in productivity since it meets customers' requirements.
- **Investment policy:** Considerable capital have been invested in acquisition of plants in different countries and renovation of facilities and machinery in different markets such as European and Asian market.
- **High Quality of product:** Products are developed according to customers' requirements and crop production needs by considering weather conditions and market's competition. In this way, Plastika Kritis succeeds in manufacture of uncompromised high-quality products that meet customer's needs.
- **Brand Reputation and customer's loyalty:** The company counts operation for more than 50 years and has set an international footprint in over 75 countries. It is ranked among the top-seven European firms in Europe in its sector. It has built up a brand reputation for its customers as it presents high experience in agricultural films production since 1970. Customers appreciate company's high quality manufacturing products, and this is the most important reason of their loyalty throughout the years. In addition, Plastika Kritis offers to customers a sales and after-sales services.
- **Tangible-Intangible assets:** The firm follows modern technological, engineering and manufacturing methods for the production of its products. The company's highly productive and fully automated equipment is

designed by the company's Engineering Department based on its specific needs. The operation of 7-layer line production line, a patented technology of Plastika Kritis based on a novel concept that has been developed by its own Engineering Department. Since it is one of 3 of its kind worldwide, the firm has managed to achieve technological leadership in the field of multi-layer agricultural films, as some of innovative technologies incorporated in the production of films are applied for the first time in the world.

- **Innovation & creativity:** the company emphasizes on research and development of products. A new Research, Development and Innovation center was inaugurated in 2018 with a perspective to create advanced products and solutions for each market that bring value to customers. The combination of continuous and extensive R&D for new products along with technological advances comprise two factors that contribute to the leverage of productivity in the company.

Weaknesses

- **High logistics and transportation costs:** Plastika Kritis is a family company established in Crete Island and keeps its operational activities for more than 50 years. Since company's headquarters are in an island and exports are served by Piraeus port, there is an extra transportation cost from Crete to Piraeus. The company tries to absorb this. This put the firm in weak position in comparison with companies that operate in Europe or in Greece mainland.
- **Limited Storage:** Plastika Kritis moved its facilities to the industrial area in 1992. The initial investment on facilities and space cannot cover company's today's needs in storage capacity. Although orders are custom made, there might be some cases that orders are kept in the company for longer time than planned. Limited storage space combined with specialized manufacturing equipment operating in high levels of performance, creates barriers in storage effectiveness.
- **Limited presence in Asian market:** Asian market has been turned into titanic emerging markets over the last decades due to its rapid technological boom. Asian market has been a place of interest for several businesses. Plastika Kritis has already expanded in Asian market through the investment of a joint-venture in Shanghai. However, since Asia presents brightening growth prospects in commerce in the future, the company could benefit in making profit with higher market penetration that could provide endless opportunities through direct investments.
- **Social networking:** Plastika Kritis seems to have improved its social image

within the last years, although there is scope for improvement. Social platforms like Facebook, Instagram and LinkedIn, Twitter and so on, are the most effective tool to attract new customers and build brand awareness, connect with customers in a more communicative – human level. Although company has been creating advertisements targeted to its audience, there still seems to be barren of crafting a social media marketing strategy with its customers.

Opportunities

- **New foreign markets:** Plastika Kritis is a continuously growing and financially stable business as it manages to cover its liabilities. By enhancing its products combining technological achievements and company's highly efficient workforce, Plastika Kritis can build a strongest sales pipeline in new markets.
- **New products – biodegradable:** Demand on biodegradable products will increase globally. Companies have re-shaped their product portfolio and policy to be harmonized with this new product demand. One sector that is likely to be affected is agriculture and horticulture, where biodegradable mulching films already produced seem to be the alternative in societies where transition to circular economy has already started.
- **Increasing use of agricultural films:** According to The United Nations Food and Agricultural Organization (FAO) projects, food and feed production will need to increase by 70 percent by 2050 to meet the world's food needs (Hofstrand,2014). Increasing food supplies is a crucial issue related to several factors like increasing crops yields, expanding cropland area and improving efficiency. Hence, agricultural sector's expansion rate will play an important factor to world's production in order to meet global food needs.
- **Marketplace Development:** As food needs seem to increase there is always place for business expansion in global market. Plastika Kritis have established of a brand-new factory in Anhui area by 2021 to manufacture masterbatches and greenhouse films.

Threats

- **Fluctuating raw materials prices:** The company's products are based on polymers. Local markets cannot cover the needs of plastic industries, thus prices in raw materials fluctuate depending on the oil price and other market conditions.
- **New Environmental policy:** Governments all over the world tend to

abide by the new environmental policies, which promote less use of plastic products and increase of bio-degradable products that are environmentally friendly. This policy prompts industries of plastic segment to re-consider their products and re-build their manufacture oriented to bio-degradable products.

- **New international barriers to trade:** Over the past years, companies that trade globally face increasing barriers from countries such as Mexico, Saudi Arabia, China and others. There has been a great increase in trade-restrictive barriers that constrains international trade flows and supply chains.
- **Macroeconomic instability:** Economic recession, political instability, credit crisis in the bank system etc., are factors that cause instability that hinders economic and business planning.

3.2 Thrace Plastics

Thrace Plastics is a well-known company in the field of plastic industries. It is a Greek-established company engaged in the production and trade of technical fabrics and packaging materials. Technical fabrics entail a wide range of products such as geosynthetics, crop and ground covers, carpet and industrial yarns, medical materials. Packaging materials include plastic packaging for food, industrial packaging such as ropes, big bags and so on. Thrace Plastics consists of workforce of over 2,000 people globally. According to company's own statement, company's mission is to invest in their people, encourage lifelong learning, collaboration, and personal achievement. Additionally, they provide complete and innovative solutions adaptable to the customer's needs and demands. At the same time they operate with respect to environment and societies where company operates (<https://www.thracegroup.com/gr/en/sustainability/>). Thrace Plastics is the parent company of Thrace Group. Thrace Plastics with eight affiliates worldwide in Norway, Sweden, USA, Scotland, Ireland, Bulgaria, Romania, Serbia and more affiliates in Greek territory. The parent company holds the key role in the capital participation and funding of the Group's subsidiaries that operate both locally and abroad. Furthermore, Thrace Plastics provides accounting and tax services, administrative & organizational consulting and support, marketing and sales services, and general consulting services, ensuring the smooth operation of the subsidiaries in multiple levels.

During the pandemic, Thrace Plastics has seized the opportunity to focus in the production of surgical masks. Due to their 30-year experience in the field of

medical and hygiene sector, they have managed to become one of the dominant suppliers in the market increasing their export activity as well.

Strengths

- **Diversified product portfolio:** The company produces a wide variety of products. Its sales address to 24 market segments (<https://www.thracegroup.com/gr/en/sustainability/>). Its primary market is disposition of technical fabrics and packaging, which can be met in construction segment, agriculture field, medical and hygiene field, geosynthetics and other markets.
- **Investments for expansion:** During the years 1999-2012, Thrace plastics present a significantly high rhythm of expansion. With the acquisition of several plants firstly in north Europe, later on in southeastern Europe, China and last but not least in U.S. market. Thrace Plastics present remarkable growth throughout these years.
- **Community support:** Thrace Plastics has envisioned the creation of a Social Center “STAVROS HALIORIS”, operating since 2010, which is a civil non-profit company in Xanthi. It is named after Stavros Halioris, founder, and president of the Thrace Plastic Group. Its aim is to support society by offering educational, cultural, recreational, and social activities to both children and adults, according to official Thrace Plastics webpage.
- **Updated Technological machinery:** Thrace Plastics combines cutting edge technologies from processing to finishing products with aim to provide innovative materials that meet customers’ requirements and needs. Due to wide variety of products and great numbers of production, company has invested on updated technological machines on its production lines to cover demand needs in the best possible way.

Weaknesses

- **High production costs:** The company faces high production costs due to diversified product portfolio and continuously increasing prices in raw materials. It is worth mentioning that during pandemic crisis the shipping costs have been increasing so that extra costs have been passed to final customers.
- **High bank debt:** The company has financed its expanding policy via bank financing that affect its creditworthiness to lenders.
- **Raw materials-volatile prices:** Thrace Plastics import large amounts of raw materials for their production needs. As they manufacture diversified

products and there is limited production of raw materials in Greece. Company's production cost is dependent on fluctuating prices of oil.

Opportunities

- **New products – biodegradable:** Over the last years restrictions have been imposed on the excessive use of plastic present as opportunity for the development of biodegradable products. Packaging is the primary use for biodegradable plastics and accounted for 59% of the biodegradable plastics made in 2019. In 2020, demand on food packaging and single-use plastic has increased because of the Covid-19 pandemic and companies seek biodegradable alternatives for food packaging and single use-cutlery (<https://www.greenpeace.org/static/planet4-eastasia-stateless/84075f56-biodegradable-plastics-report.pdf>).
- **New external partnerships:** The company has been benefited from the cooperation with supermarkets for the production of packaging materials for generic products that are named after each supermarket's brand. Food and beverage industry requires huge amounts of plastic packaging solutions due to its low cost instead of its substitute products like paper and glass that are more costly. Furthermore, during pandemic the high demand for surgical masks worldwide is an opportunity for the company, which has an expertise in its production.

Threats

- **Strong Competition:** The company faces strong competition both domestically and internationally. This competition is intense from companies operating in border countries like Serbia and Bulgaria.
- **Unreliable customers:** Thrace Plastics should be aware of the risks that involves customers with bad credit. The business is exposed to the risk of minimizing its profits when credit policy is determined by high-risk customers with poor credit. Thus, credit policy depending on the customer's financial condition should be thoroughly evaluated and revised according to company's financial needs.

4. PESTEL Analysis

In the face of the ever-changing market conditions, companies need to identify changes in the market conditions. Changing conditions can be classified in two categories: changes that can be controlled by the firm and those that may

fall beyond firm's control. Those factors have an impact on firm's operational activity and prosperity (Mintzberg, 1994).

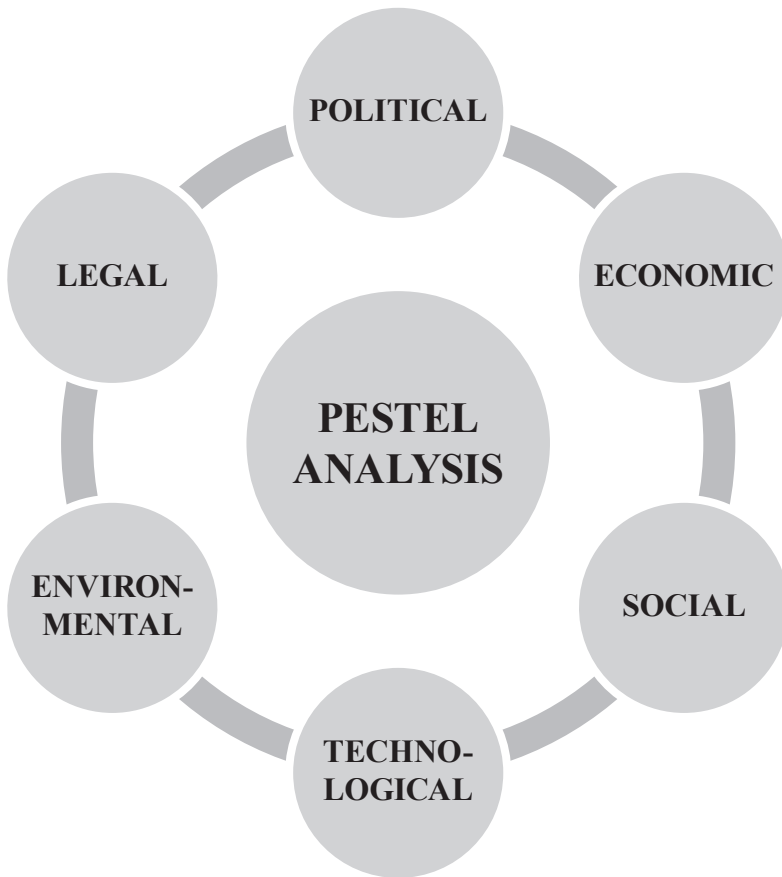
One of the tools used in practice for the identification of the factors of change is the PESTEL analysis. PESTEL analysis aims to determine the impact of external factors to business. PESTEL is an acronym that stands for Political, Economic, Social, Technological, Environmental and Legal factors. Those factors are considered as the most important macro environmental factors of an entity or a sector. PESTEL can be used in several segments of a business such as product development, marketing plan, strategic planning, and organizational planning activities (Johnson, Scholes & Whittington, 2010).

Political factors underline government's role. It shows the way, and the degree political authority interferes in the economy or business sector. Government interference can take various forms: government policies, stability of political environment, corruption levels, tax and employment legislation etc. (Sridhar et al., 2016). Economic factors refer to macro-economic elements prevalent in an economy. Determinants usually examined are: economic growth rates world, interest rates, inflation rates, exchange rates, unemployment rates (Dalirazar & Sabzi, 2020). Social factors refer to demographic characteristics, norms, customs, health and lifestyle, cultural barriers etc. (Islam & Mamun, 2017). Technological factors include innovations and technology, and regulations connected to technology. These factors could be listed as technology incentives, level of innovation, automation, R&D activity, technological change, technological awareness and so on.

Environmental factors are considered as determinants of utmost importance. The consideration of environmental factors seems rather crucial due to scarcity of physical resources and large pollution. Environmental characteristics such as weather, climate, and climate change are investigated in this category. Legal factors are closely associated with employments laws, consumer protection laws, copyright laws, health, and safety regulation etc. Enterprises should know the legal environment in order they abide by the laws and regulations (Islam & Mamun, 2017; Dalirazar & Sabzi, 2020).

PESTEL analysis specifies current situation as well as changes that might take place in the future. Variations in certain factors may affect other factors. Technological developments can affect economic factors by generating new professions or by extinction of older professions, while they can affect environmental factors by reducing pollution. The analysis of these factors and their interrelationships can be complicated and may lead managers to arrive at controversial conclusions (Johnson, Scholes & Whittington, 2010).

We have developed a PESTEL analysis for both *Plastika Kritis* and *Thrace*



Picture donated from <https://www.business-to-you.com/scanning-the-environment-pestel-analysis/>

Plastics. Both companies are Greek-owned. Plastika Kritis is based in Crete Island, whereas Thrace Plastics was initially established in Xanthi, with headquarters in Athens nowadays. Both companies have acquired several subsidiaries all over the world.

Considering the political conditions for the period 2015-2019, we could draw some conclusions on external factors that could have affected both companies. Greece has faced political instability and economic recession over the last 12 years, factors that hinder investment and businesses expansion.

Furthermore, the continuous change in tax-legislation, the rigid bureaucratic structure of the public sector administration along with alleged widespread corruption are factors that impede businesses development.

Economic recession that Greek country had faced over those years, is one factor that should be considered for both companies. However, it is not only Greece's recession that affects firms' profitability but potential recession in the markets targeted as well, since it affects purchasing power of customers in these markets. Exchange rates is also a key factor that should be examined for both companies as it affects imports and exports activities on settlement of debt to suppliers and sales profits.

Moreover, companies should be alert when it comes to inflation levels and unemployment rates in the countries where goods are exported, since these factors affect immediately the economy of a country as well as its trading policies.

Social factors should be taken into consideration. Social factors should be thoroughly examined and studied carefully on a case-by-case basis. The supply and demand of goods and services are closely related to social structure. Therefore, companies like *Plastika Kritis* and *Thrace Plastics* should monitor market's needs and demands. Consuming habits of people all over the world change. For instance, in western societies people tend to consume healthier food, which leads to increase of cultivation needs of agricultural products. Both companies should keep an interest in consumer attitude and lifestyle changes and their impact on markets.

Technological factors are also a part of this analysis as they consider the rate of technological innovation and development in business sector. Technological factors include automation, research and development activity (R&D), patents and generally it could involve all procedures that entail new ways of production in order to cut down production costs and keep a standard level of quality, advanced ways of distribution on goods and services and improved ways of communicating products in the market.

Plastika Kritis have focused on technological factors by investing on continuous and extensive research and development for new products that bring value to customers. The company develops modern and highly productive automated systems. New technology may also provide the opportunity for more innovative products. Such innovation could be technological leadership in the field of multi-layer agricultural films with the introduction of production line of 7-layers agricultural films, a patented machine exclusively constructed by specialized engineers of the company. Another system worth mentioning is automatic bagging and palletizing system, which consists of a palletizing robot

that facilitates packaging with less physical strain for employees. Thrace Plastics according to their statement, they combine cutting edge technologies from processing to finishing to provide innovative materials that respond to any type of customization needs in specifications, product variety and design. We can see that both companies have incorporated new technologies their operational system. Technological advancements can change the profile of a corporation.

Environmental factors refer to variables that are related to physical environment and the impact of them on businesses. Manufacturers like Plastika Kritis and Thrace Plastics, whose products are based on polyethylene and polypropylene respectively (whose basic ingredient is oil), are depended on the (non) availability of non-renewable goods. Scarcity of raw materials or increase of fuel price could have devastating consequences either in their production costs or in logistical costs.

Climate change has affected businesses in many ways, especially those whose operation are related directly and indirectly with the production of food supplies. Variables such global warming, earth pollution and customer's health condition are associated with crop availability as well as consuming society's habits.

Both companies examined in this study, comply with the European strategy for plastics and the transition to a more circular economy. Plastika Kritis has been investing on the production of new environmentally friendly biodegradable compounds. Thrace Plastics aligned with the "European Strategy for Plastics in a circular economy", has redesigned and manufactured new products. One of the latest products is RE-Cup II, which is a reusable solution for "on-the-go" coffee and beverage cup, with less impact on the environment (Thrace Plastics official webpage <https://www.thracegroup.com/gr/en/news/#>)

Legal factors usually refer to laws and regulations that affect business' operation and the level that a business abides by them. It entails employment laws, health and safety laws, copyright and patent laws, industry specific regulations, environmental legislations, import and export law etc. According to official page of the company (<https://www.plastikakritis.com/en/care-for-our-people>), Plastika Kritis have been certified according to OHSAS 18001 in respect to health and safety standards. The company follows basic principles of human resource policies incorporating in this way discrimination policies and laws by the empowerment of the value of every individual person. Moreover, health and safety regulations are being promoted by pursuit of uncompromised standards relative to employee's health and safety. Since Plastika Kritis is an industrial company with exporting activities to over 70 countries worldwide, the firm is obliged to follow trade laws across the globe and owing to on-going

training of personnel to develop their skills and education, the company manages to achieve its commercial goals respecting each markets imports and exports laws and regulations. It is important to mention that Plastika Kritis company follows strictly environmental regulations by adopting a recycling policy in an effort to participate in the protection of the environment. A plastics recycling unit has been operating in its facilities in Iraklion by the collection of used greenhouse films, municipal plastic waste and industrial scrap to recycle them and some of them reuse it or re-sell it to other factories.

Thrace Plastics comply with a strict Health & Safety policy that aims to create an environment where management, employees and contractors work in partnership to implement this policy. In terms of employment laws and regulations, the firm provides and maintains a working environment, including welfare facilities and arrangements, that is, so as is reasonably practicable, safe and without risk to health. The company also ensures that plant, machinery, equipment or appliances in company premises are safe and without risk to Health, Safety and Welfare at Work of all personnel. Thrace Plastics comply with all applicable Government Health & Safety Legislation and, where appropriate, establish company standards, procedures and guidelines for an improved managerial operation. Policies are reviewed annually based on monitoring of their effectiveness and in order to ensure that policies followed reflect changes in governmental legislations.

5. Conclusions

Despite the severe economic recession that hit Greek economy certain companies have managed to keep on their operations and be profitable. In this paper, we examined two manufacturing companies, that constitute examples of Greek companies that have expanded in spite of the prolonged recession. Overall, both Plastika Kritis and Thrace Plastics present satisfactory levels of performance. Financial ratio analysis suggests that in spite of the severe recession that Greek economy experienced since 2009, both companies managed to operate efficiently and profitably. The SWOT and PESTEL highlights some of the current competitive attributes of the two companies. More specifically, Plastika Kritis emphasize on technological achievements and innovation on their materials with the production of new films and masterbatches with the use of new technologies that are eco-friendly. On the other hand, Thrace Plastics provide innovative solutions to its customers in packaging activity based on company's expertise staff focusing on brand loyalty. In order to sustain their competitive position, the two companies should constantly monitor

the continuously changing conditions in the broader environment (economic, legal, social etc) in which the two companies operate.

References

- Armstrong, G., & Kotler, P. (2015). *Marketing: An introduction*. (15th edition pp. 83) Upper Saddle River, N.J: Pearson Prentice Hall.
- Brealey, R. A., Myers, S. C., & Marcus, A. J. (2012). *Fundamentals of corporate finance*. The McGraw-Hill Companies; 7th edition.
- Damodaran, A. (2012). *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset*. Canada: WILEY John Wiley & Sons, Inc.
- Greenpeace. (2020). *Biodegradable Plastics: Breaking Down the Facts production, composition and environmental impact*. Greenpeace Retrieved from <https://www.greenpeace.org/static/planet4-eastasia-stateless/84075f56-biodegradable-plastics-report.pdf>.
- Hill, Ch. W.L., McShane, Steven L., (2008). *Principles of management*, (pp 113), Irwin/McGraw-Hill.
- Hill, Terry and Westbrook, Roy, (1997) "SWOT analysis: it's time for a product recall" from *Long Range Planning* 30 (1) pp.46-52, Oxford: Pergamon.
- Hofstrand. (2014, February). *Can We Meet the World's Growing Demand for Food?* | *Agricultural Marketing Resource Center*. Agricultural Marketing Resource Center. Retrieved from April 29,2021 from <https://www.agmrc.org/renewable-energy/renewable-energy-climate-change-report/renewable-energy-climate-change-report/january--february-2014-newsletter/can-we-meet-the-worlds-growing-demand-for-food>.
- Plastika Kritis, from: <https://www.plastikakritis.com/en>
- Islam F.R., Mamun K.A. (2017) Possibilities and Challenges of Implementing Renewable Energy in the Light of PESTLE & SWOT Analyses for Island Countries. In: Islam F., Mamun K., Amanullah M. (eds) *Smart Energy Grid Design for Island Countries*. Green Energy and Technology. Springer, Cham. https://doi.org/10.1007/978-3-319-50197-0_1.
- Johnson, G., Scholes, K., Whittinhton R.. (2010). *Fundamentals of strategy* (pp. 25-26) New York, N.Y: Pearson Education Limited.
- Kieso, D., Weygandt, J. & Warfield, T. (2016) *Intermediate Accounting* 16th edition, (pp 231) Wiley Binder version.
- Koumanakos, D.P. (2008), *The effect of inventory management on firm performance* (Vol. 57 No. 5) *International Journal of Productivity and Performance Management*, pp. 355-369

- Mintzberg, H., (1994) *The rise and fall of strategic planning*, New York: Free Press.
- Political stability by country, around the world. (n.d.). TheGlobalEconomy. Com. Retrieved April 29, 2021, from https://www.theglobaleconomy.com/rankings/wb_political_stability/
- Pratt, J..(2011) *Financial Accounting in an economic context* (8th edition pp. 194). USA, Wiley editions.
- R. Sridhar, V. Sachithanandam, T. Mageswaran, R. Purvaja, R. Ramesh, A. Senthil Vel & E. Thirunavukkarasu (2016) A Political, Economic, Social, Technological, Legal and Environmental (PESTLE) approach for assessment of coastal zone management practice in India, *International Review of Public Administration*, 21:3, 216-232, DOI: 10.1080/12294659.2016.1237091.
- Robbins, Stephen P., Coulter, Mary K.. (2012). *Management* (11th Edition pp. 227-228). Upper Saddle River, New Jersey: Pearson.
- Sadaf Dalirazar & Zahra Sabzi (2020) Strategic analysis of barriers and solutions to development of sustainable buildings using PESTLE technique, *International Journal of Construction Management*, DOI: 10.1080/15623599.2020.1854931.
- Skoumbouris, A., (2021, May 8). *Plastika Kritis: Strong global presence, profits jump in 2020*, Business Daily, retrieved May 2021 from https://www.businessdaily.gr/english-edition/42021_plastika-kritis-strong-global-presence-profits-jump-2020.
- Subramanyam, K. R.. (2014). *Financial Statement Analysis* (11th edition pp. 476). Singapore: McGraw-Hill Education.
- Thrace Plastics: Annual Financial report, Retrieved in February 10, 2021 from: https://www.thracegroup.com/uploads_file/2018/04/19/p1cbevo7fs1i8h-4j0149v18lv1752f.pdf

AN INTERTEMPORAL COMPARISON OF MONETARY POLICY STRATEGIES IN EXTRAORDINARY TIMES: THE COVID-19 AND THE ATHENIAN PLAGUE DURING THE CLASSICAL TIMES

E. ECONOMOU* N. KYRIAZIS**

Abstract

In this paper we perform an intertemporal comparison between the main monetary policy strategy that was introduced by governments around the globe so as to combat the current COVID-19 global crisis, in relation to the monetary policy strategy that the citizens of Athens in Classical times implemented so as to effectively handle a major extraordinary situation of their times, with similar characteristics to that of the COVID-19, the plagues of the 429 and 427/6 BCE. In contrast to the current Quantitative Easing practices, when the Athenians faced these epidemics they were capable to effectively face them due to the ‘fiscal discipline’ strategy they had introduced in advance and due to their decision not to debase their national currency, the drachma.

JEL Classification: E02, E52, G28, H12, N13, N23

Keywords: COVID-19, The Athenian plague, money supply, QE practices, fiscal discipline

1. Introduction

The outburst of the COVID-19 pandemic constitutes another paradigm of the fatal consequences that widespread diseases can lead to if monetary and fiscal authorities hesitate to take out action to face such groundbreaking phenomena.

It was in December 2019 that a severe acute respiratory syndrome (SARS) made its appearance in the Wuhan city in China. This led to spread of the coronavirus (COVID-19) in China that was declared as a pandemic on 11 March 2020 by the World Health Organization. On 30 January 2020, the Chinese outbreak of COVID-19 was announced to be a Public Health Emergency of International Concern. This meant that regions with vulnerable health systems were

* Adjunct Lecturer, Department of Economics, University of Thessaly, Greece, e-mail: emmoikon@uth.gr

** Adjunct Lecturer, Department of Economics, University of Thessaly, Greece, e-mail: knikolaos@uth.gr

facing high levels of risk. The disease urged the EU to mobilize a €10,000,000 research fund in order for more efficient treatment of COVID-19 infected patients to be achieved (Sohrabi et al., 2020). The outbreak of the COVID-19 disease has been leading to detrimental economic and social consequences in a worldwide level (Goodell, 2020). The early days of the outbreak have led to more intense reactions of stock markets (Ashraf, 2020).

In this paper we perform an inter temporal comparison between the main monetary policy strategy that was introduced by governments around the globe so as to combat the macroeconomic side effects of the current COVID-19 global crisis, that is Quantitative Easing (QE), in relation to the monetary strategy that the citizens of Athens in Classical times (508-323 BCE) undertook so as to effectively handle a major extraordinary situation of their times with similar characteristics to that of the COVID-19, the Athenian plague of the 429 and 427/6 periods. We relate this discussion to the nexus between monetary and fiscal decision-making during the era of the Athenian plague as well as in nowadays crises and diseases, such as the COVID-19.

It is found that in distressed times such as during a serious epidemic, by following a combined economic principle of both monetary and fiscal nature, that is “not to debase the currency and not to produce systematic deficits” the Athenians managed to maintain the trust and the reputation of their currency in the international affairs of their times. By contrast, the monetary authorities of the regions afflicted such the US or the Eurozone were obliged to resort to currency debasement, through unconventional monetary practices. A major reason to this is that they so far failed to avoid systematic deficits and a rise of the global public debt.

The paper is organized as follows: Section 2 provides some insights on recently applied unconventional monetary policy measures, mainly Quantitative Easing (QE) during the current crisis. In Section 3 we describe in brief the main characteristics of the Athenian economy in Classical times and in Section 4 we describe how the Athenian money supply policy was determined. In Section 5, based on the analysis of Sections 3 and 4 we provide an analysis as to how the Athenian money supply policy under extraordinary situations was formed. Based on Sections 3 to 5, in Section 6 it is explained how the Athenians effectively managed to face the plagues of 429 and 427/426 BCE by introducing a specific concept of a monetary policy. Finally Section 7 compares the evidence regarding the current monetary policy strategy that was implemented by governments in order to handle the current COVID-19 pandemic, with the monetary strategy that was adopted by the Athenians in the years 430/29 and 427/6 in Athens in Classical times during the plague.

We argue that the prudence of the Athenians not to produce systematic deficits through the passage of time enabled them to successfully confront the negative macroeconomic consequences of the disease. In particular, the plague did not force the Athenians to debase their currency, neither exposed them to intense inflationary pressures. This is because, in contrast to the current situation in the world system, fiscal discipline prevailed as a policy, in advance, and the appearance of no systematic deficits enabled the Athenian policymakers to avoid a pandemic-induced turmoil.

By contrast, due to the huge public deficits and debts that appear even in the economically strong countries nowadays, this forced them to debase their currencies by introducing QE policies so as to channel a large quantity of money on the economy, that is, expansionary monetary policy, as a way to effectively face the recessional effects of the current global pandemic.

Thus, the Athenian doctrine, that was, “not to debase the currency and not to produce systematic deficits” helped the state to maintain the trust and the reputation of the currency in the ‘international’ monetary system of the time and of course this was crucial for not resorting to money debasements through liquidity injections that could be accompanied by strong inflationary pressures which could have been very harmful for the economy.

2. Modern methods of fighting the economic repercussions of a crisis/ disease

After the outburst of the 2008 Global Financial Crisis, monetary authorities of major countries provided ample liquidity injections in order to satisfy the huge increases in demand for liquidity. QE is used nowadays to express the expansion of narrow money in the form of bank reserves or high-powered money, that is, the total currency circulating in the public plus the currency that is physically held in the vaults of commercial banks, plus the commercial banks' reserves held at the central bank.

This policy was firstly implemented by the Bank of Japan during the period 2001-2006 and led to higher levels of liquidity. QE is considered to be the main policy instrument of unconventional monetary action taking and is employed when the economy has reached the Zero Lower Bound (ZLB), that is, when the short-term nominal interest rate is at or near zero, causing a liquidity trap and limiting the central bank's capacity to stimulate economic growth.

The major advantage for an economy when introduces QE practices is that it enlarges the balance sheet of a central bank through the purchase of very large amounts of Treasury bonds as well as Mortgage-Backed Securities

(MBS) in order to increase money in the economy (Joyce and Tong, 2012). In other words, a QE policy increases the money supply in the economy, which consists what is called as an *expansionary* monetary policy. QE practices encourage lending and investment.

On the other hand, it is found that QE not only boosts economic activity but it can cause a side effect, that is, it increases inflation (Papadamou et al., 2019). Notably, inflation can be very harmful for an economic unless anti-inflationary measures are introduced on time.¹ It should be stressed that unconventional monetary policy in the United States and the United Kingdom functions mainly through bond markets (D' Amico et al., 2012) whereas in Japan and the Euro area through bank lending (Matousek et al., 2019; Mamatzakis and Bermpei, 2016).

Notably, regarding the current COVID-19 crisis, the Fed announced that up to \$2.3 trillion would be provided in the form of liquidity to the US economy. For the purposes of fighting the COVID-19 pandemic economic consequences, the Fed has employed a mix of policies such as lowering the federal funds rate (FFR) and realizing forward guidance practices. Moreover, QE asset purchases (nearly bought \$2 trillion worth of assets on 23 March 2020) took place and has promised the continuation of Treasury purchases at the pace of \$80 billion a month. Furthermore, mortgage securities (both commercial and residential) will be continued at the current \$40 billion pace. Moreover, the Primary Dealer Lending Facility (PDCF) has revived so as to offer low interest rate (currently 0.25 percent) loans of up to 3 months to 24 primary dealers. Another unconventional monetary measure has been the re-adoption of the Money Market Mutual Fund Lending Facility (MMLF) to enable lending to banks against collateral. This aims to help money market funds to satisfy the demand for redemptions by economic agents and is intended to give a boost to markets. These measures in tandem with repo operations and enhancement of direct lending to banks by its discount window by lower rates along with lax regulatory requirements, intend to re-inject the US economy.²

It should be underlined that the European Central Bank (ECB) has also launched unconventional monetary policy measures with no great delay in order to combat the COVID-19 economic consequences. It announced a €750 billion Pandemic Emergency Purchase Programme (PEPP) on 18 March 2020 including all the asset categories eligible under the existing Asset Purchase Program. Furthermore, on 4 June 2020, an announcement about increasing the envelope for PEPP by €600 billion was made.³

3. A brief analysis of the structure of the Athenian economy in Classical times

Before analyzing the monetary policy strategy that the Athenians in Classical times implemented in order to face the extraordinary situation of the Athenian plague, we think that it is necessary to this point to provide a brief description of the Athenian economy during this period. This is important in order to better understand the discussion that follows in the next Section⁴.

During the last 30 years the vast majority of the international academic literature argues that the Athenian economy of the Classical period was characterized by sophisticated (for the era) market type of economic institutions of ‘international’ commercial orientation such as: i) banking services (Cohen, 1992)⁵ ii) insurance services (Acton, 2014) iii) primitive versions of joint stock companies for providing loans for maritime commerce (Acton, 2014) iv) efficient trade networks for exchange of goods and services (Bitros et al., 2020; Economou et al., 2021, Halkos et al., 2021) v) property rights protection and protection of commercial contracts (Economou and Kyriazis, 2017) vi) laws against profiteering, an effective taxation system and effective and functional public finance institutions vii) sound money (Figueira, 1998; Bitros et al., 2020; Economou et al., 2021; Economou and Kyriazis, 2021) viii) welfare state policies and provision of public goods (Bitros et al., 2020) etc.

Due to space limitations we neither can reproduce all this evidence here nor analyze in detail the Athenian economy’s institutions. But readers can easily find further analytical evidence in the authors we cite above and the references that are further provided therein. However, there is no doubt anymore that the Athenian economy was based on free market type of economic institutions, even if of a primitive form, and this comes in stark contrast with the earlier (through influential) beliefs of historians such as Moses Finley and his followers, who were advocates of the ‘primitive’ structure of the Athenian (and the Ancient Greek in general) economy (see e.g. Finley, 1973).

After the defeat of the Persians in the second phase of the so-called Greco-Persian Wars (480/479 BCE) the Athenians established the so-called Delian League known also as the Athenian Alliance under their leadership in 478 BCE. This did not cause only a kind of “Cold War of the antiquity” between Athens, Sparta and their opposing allies in the period that followed (478-431 BCE) which was culminated with the Peloponnesian war (431-404 BCE) as Platias (2002) and Platias and Trigkas (2021) describe very persuasively.

What also simultaneously happened was very crucial: the establishment

of the Athenian Alliance led to the rise of a series of flourishing commercial and monetary networks between its member city-states where goods and services could be exchanged freely through a variety of coins, with the Athenian *drachma* becoming the most prominent and leading currency in the Mediterranean (Figueira, 1998; Bresson, 2016; Woolmer, 2016; Bitros et al., 2020; Economou et al., 2021).

In this unified political-military and economic area trade was highly beneficial and Athens achieved economic growth⁶ and provided employment for substantial parts of the population in shipbuilding, and other services related to trade etc. Athens benefitted from international commerce to such a magnitude that in 402/401 BCE, the import and export trade value of Athens, including transit trade, amounted to more than 1,800 *talents*, which was equal to 10.8 million *drachmas*, a very large worth of value⁷. According to Cohen (1992, 141), the port of Piraeus became the international entrepôt of Classical antiquity, as among others, Hong Kong, Shanghai and Rotterdam today. And Halkos and Kyriazis (2010) argue that the Athenian was the first recorded economy where the “GDP” produced in the secondary and the services sector exceeded the “GDP” produced from the agrarian sector.

4. How the Athenian money supply policy was determined

Ancient Athens started cutting silver coins from 545 BCE. Athens extracted silver from the famous Laurion mines, in the southern part of Attica, while other city-states coined silver, electrum (a natural alloy of gold and silver) and a few gold coins. The silver resources of Laurion were owned by the city itself. On the obverse these coins depicted an image of Athena, the guardian goddess of the city, and on the reverse, an owl, the sacred bird of the city of Athens, symbol of wisdom. Mining operations were undertaken by the private sector; individuals or consortia of individuals bid for leases to work particular tracts of the mines offered by a state agency known as the *Poletai* (board of sellers) and thereby received a state contract (Figueira, 1998; van Alfen, 2011; Bitros et al., 2020). Mining became intensive and very productive during the fifth and fourth centuries BCE. Money supply was produced by the state-owned silver mint, known as *Argurocopeion*. Possibly it was in or near the *Agora*, the main marketplace in the city-state of Athens (van Alfen, 2011).

Money supply was mainly determined by: i) the state itself, through the Athenian *Assembly* of citizens’ decisions ii) the market forces themselves iii) the banking sector. Regarding the first, in order to achieve long term economic prosperity the Athenians had understood that it was imperative not to create

annual public deficits and debt. This could be done by achieving annual balanced budgets. The Athenian Council supervised the way in which the budget was applied in any given year so as to achieve fiscal discipline and avoid systematic deficits.

However, what is also important to bear in mind is that during extraordinary situations such as a war or a plague, the state through an Assembly decision could intervene and increase the money supply in the economy by asking from the privates or the private consortia who were running the silver production to increase their mining activity by producing larger volumes of silver bullion and then asking from the state silver mint also to increase the volume of currency production on its side (Bitros et al., 2020). This extra-produced money supply was definitely an expansionary monetary policy.

Regarding the second mechanism of determination of money supply, anyone who had silver bullion might apply to the state mint and ask for converting his bullion into currency bearing the official Athenian stamp at a small fabrication and *seigniorage* cost 5% or 8% according to the case (Kroll, 2011; Bitros et al., 2020). Thus, the mint undertook a function which looks similar to modern Central Banks practices, in terms of influencing liquidity through their interest rate (discounting) for the acceptance of bullion. The main reason for citizens, who held bullion to monetize it, was to cover their (especially non-permanent) tax obligations, or other extraordinary expenses, for example a marriage festivity, the granting of a monetary dowry for a daughter, etc. But the remains could be used either for savings e.g., in a bank and then the bank could offer loans through them, or for consumption, by buying products from the market. In this way, the silver bullion holders could intervene, to some degree, to the overall money supply in the economy.

Finally, money supply could be further increased by the Athenian commercial banks which could increase the overall money supply in the economy by providing loans and other financial services. But we do not have statistical evidence / clinometric data available to calculate the size of the money multiplier and in general the effect of money supply by the banking sector.

What is also important is that the Athenians were conscious of the long-term benefits of trust and reputation of their currency, as against the short-term benefits of debasement. A characteristic proof of this is Aristophanes (*Frogs* 718) who strongly criticized both those who minted counterfeit coins and the decision of the Athenian state to counterfeit the coin, even if it only happened in the Peloponnesian war due to extreme necessity (war and plague) (Figueira, 1998, 511-521).

Athenians had realized that by establishing a reliable currency (meaning of

high value silver content) for their daily city-state and/or international commercial transactions they could enjoy a number of significant benefits. Firstly, the wide acceptance and circulation of Athenian *drachmas* abroad enhanced the prestige and standing of the city. Secondly, according to van Wees (2013) approximately twenty percent of citizens were paid from the state budget for services rendered to the state, e.g., as rowers and sailors in the fleet, as specialized land troops or as jurors, public magistrates. If those citizens were paid in debased coins social frustrations could have emerged and this would jeopardize the smooth running and prosperity of the society as a whole. Thirdly, Athenian currency leadership brought with it *seigniorage*, which was small in percentage in Athens as was already mentioned above 5, but not negligible overall as a source of revenue for the state, due to the important amount of bullion converted into coins.

Taking all the above into account, Athenians had understood that they had to ensure the purity of their silver *drachmas*, against all fraudulent coins at any cost as a way to reap the rewards of such a strategy. According to Figueira (1998), Kroll (2011), Bitros et al. (2020), Economou et al. (2021) and others they effectively managed to achieve this during the whole Classical period through the so-called Nicophon's law (by the name of its initiator) in 375/4, which actually was an update of a previous law of 402, through which special magistrates were introduced so as to ensure that any counterfeit or fraudulent coins were to be seized, withdrawn from circulation and demonetized, thus guaranteeing the value of the coins and the trust of users.

5. The Athenian money supply policy under extraordinary situations

The Athenians could actually resort to three basic policies-strategies in case the annual public expenditures exceeded the revenues, when extraordinary situations were taking place, such as an exogenous shock like a war or disaster or plague which could cause severe negative side-effects in the society.

The first option was related to the large sums of money that the Athenians had collected as annual remittances from their Allies of the Delian League. Possibly, these sums of money were stored in the Athenian state Treasury located in the backside of the Temple of Parthenon in the Acropolis.

The second option for the state to cover its financial needs or debts when in need was the so-called *Sacred Funds* known also as the *Treasury-Temples of Athena and Other Gods*. These treasury-temples collected money from the payment of fines, rental of property owned by the state, money from the

faithful people and even private donations. The *Treasury-Temples of Athena and the Other Gods* were very substantial due to their financial strength. That of the goddess Athena, the treasury with the largest financial capacity among all others, in 431, at the beginning of the Peloponnesian War, was valued at 6,000 *talents*, half of it was in Attic silver coins and the rest in foreign silver, electrum and gold coins.

More specifically, the Temple of Athena till 427 BCE loaned money to the state at an interest rate of 6% but only 1.2% from 426 onwards (Bitros et al., 2020). When the state ‘borrowed’ from the treasuries, it actually put back into circulation money which the state had left for safekeeping in the treasuries of the gods, thus increasing the money supply in the economy and this was an expansionary monetary policy. In this way, the treasuries functioned as a kind of a quasi-Central Bank in the way Central Banks functioned for some states (e.g., Greece before joining the EMU), lending to the state sums in order to cover budget deficits, a case of monetization of deficits leading to inflation.⁸

The third option was an extraordinary one: money supply increases through currency debasement. This could only happen if the sums of money that could be provided by the two options described above were no longer possible. For example, during the second phase of the Peloponnesian war (415-303) where the annual public revenues and the overall state funds were depleted due to high cost of financing the war, money supply, so as to satisfy the further military state needs, could be only further increased by issuing electrum coins (which were phased out during the first half of the fifth century), gold, bronze, and silver-plated (with a bronze core) coins.

A characteristic example is the melting down of public holdings of gold, especially that of the gods’ treasuries. The first gold coins were minted in 407 BCE, by the melting, among others, of seven gilded *Nikai* (victory) statues. Thus, due to this, increases in money supply and currency debasement took place. However, what is important is that very soon after the end of the Peloponnesian war and the restoration of democracy, silver-plated and gold coins were retrieved from circulation and demonetized. Athens reverted to silver coins as its legal tender (Figueira, 1998, 510-521). This is because the Athenians considered imperative not to debase their currency, so as to manage to establish it as the leading internationally currency among their allies, because this had economic and geopolitical-strategic benefits (Bitros et al. 2020; Economou et al., 2021).

6. How the Athenians faced the plagues of 429 and 427/426. A monetary perspective approach

Regarding the extraordinary case we examine in this essay, the extremely deadly pandemic known as the Athenian plague, appeared at first in 430 BCE, in the second year of the so-called Peloponnesian war during a period when the city was besieged by the Spartans. It is believed that the pandemic first appeared in Piraeus, which was the main entrance to the city's supplies by sea. The plague also appeared in other parts of the East Mediterranean, returning twice, in 429 and in the winter of 427/426 and the catastrophe it caused to the people of Athens was a major first damage to the city in the course of the war.

The infection is estimated to have killed a large percentage of the city's residents, between 1/4 or 1/3 of the overall city's population of 300,000. Among the victims were the Athenian democratic leader Pericles and his family members. Historians have not come to a definitive explanation of the type of disease that concerned the case of Athens. Typhus, typhoid fever or hemorrhagic fever of the Ebola type are diseases that have been proposed, among others as a logical explanation based on the descriptions and the archaeological findings that are available to us (Morens and Littman, 1992).

The disease was so severe that there was no witnessing of anything similar in the past, and doctors not only had a very difficult task because they did not know how to deal with it, but they were usually the first to die as they were in constant contact with patients. Most people died on the seventh or ninth day after the onset of the disease, with those surviving becoming more likely to develop severe stomach pain and diarrhea while many others died of exhaustion. Many people died completely alone as no one dared to risk caring for them. The dead formed piles of corpses, many were left to decompose, buried in mass graves, and cremated, with the fires burning incessantly with the new corpses constantly being added. Others had prepared private funeral fires so that they were ready for their relatives and friends.⁹

What is important to bear in mind from an economic standpoint is that with the case of the plague of the years 430/29 and 427/26 the Athenians did not resort to any kind of currency debasement in order to increase the money supply, as they did 23 years later, in the last period of the Peloponnesian war (407-403). This is because before resorting to any kind of extraordinary measure against the pandemic, such as currency debasement, they could still use the large quantities of money stored either in the Allied Fund and the *Treasury-Temples of Athena and the Other Gods* as described above. The crucial qualitative element here is that the Athenians chose wisely to institute in

advance a remittance reserves system which could be used in extraordinary situations. And what is also crucial is that the success of this system was not so much based on Allied financial contributions but mainly to the fiscal discipline prerequisite backed by state laws which the Athenians had conscientiously and willingly accepted in the popular Assembly of citizens as an imperative fiscal principle, as was already mentioned.

Due to this fiscal discipline mentality, when the plague appeared, they were well prepared in advance and they were not forced to take extraordinary measures and debase their currency. This contradicts with the current COVID-19 situation where serious side-effects such as layoffs and business closures took place and made necessary the intervention of monetary authorities such as the ECB with unconventional monetary practices so as to remedy the economic consequences of recession by debasing the currency through the QE and helicopter money drops practices.¹⁰

Thus, when the Athenians decided during and after the pandemic period of 430-426 to launch, let us say, a two-stage fiscal expansionary policy strategy so as to effectively phase the negative consequences of the pandemic by investing on public goods in the form of public infrastructure (see below), they could easily find and borrow this money from their state treasury and by borrowing with low-interest rates from the Treasury-Temples as described above. Here we may find a parallelism with the current situation. We notice that the Athenian treasury-temples lent with low-interest rates the Athenian state, just as the ECB does, by providing liquidity with low interest rates in order to fight the COVID-19 pandemic.

The Athenian two-stage fiscal expansionary policy strategy included: i) public infrastructure and religious infrastructure ii) new war preparations. These arrangements required a significant number of employees. To name some of the construction works, these included the Stoa (arcade) of Brauron southeast of Athens made ca. 425, the marble temple of Athena Nike which began in 427 BCE and completed in 425/424, a new Bouleuterion (a building to accommodate the members of the Council), the Stoa of Zeus Eleutherios, constructed between 430 and 420 etc. A detailed description of these works is provided, among others, by Travlos (1971).

The public works and the new military preparations progressively created a new series of jobs in the construction, maritime and military industries of Athens (such as warships known as triremes). And since these industries employed a significant percentage of the city's workforce, the Athenian economy managed to gradually recover due to them in the next years.

7. Concluding remarks: A comparison between the Athenian and modern economies practices under extraordinary situations

The nexus between monetary and fiscal decision-making has been at the epicenter of economic debate during turbulent periods such as pandemics that lead to major economic upheavals. Based on the comparison between the Classical Athenian economy and the modern economics nowadays, it can be argued that the former was better prepared to confront the plague disease than the latter.

With the case of the economy of Classical Athens during the plague periods of 430/429 and 427/6, it can be seen that the fiscal axioms of the Athenians were: i) to follow fiscal discipline policies by not producing public deficits ii) not to debase the currency allowed the necessary amounts of liquidity to be infused into the economy with no need to debase the Athenian currency.

The Athenian plague constitutes an example of fiscal authorities having taken measures in advance for fighting the economic consequences of such a disease. Thereby, in this earlier pandemic episode no need for excessive money creation was brought to the surface due to a basic principle that the Athenians followed axiomatically, not to abandon the fiscal discipline and produce systematic deficits. Due to this, the Athenians proved well-prepared to face the plague without debasing the value of their currency and thus not to be forced to reduce its silver content through others metals such as bronze. As a solution to counterbalance the recessional side effects of the Athenian plague, they increased money supply in order to boost the economy by either resorting to the large funds of money already stored in the Treasury of Goddess Athena in the Parthenon, or to the Treasury-Temples for borrowing money.

They were forced to debase their currency only a at a later time only for five years (407-403) when, due to the ongoing extraordinary expenses of the Peloponnesian war, their treasury funds and the funds of the *Treasuries of the Temples of the Gods* were depleted whereas the Athenians were still in need for large military expenditures.

On the contrary, liquidity drainage during the COVID-19 episode has demonstrated the necessity for further stimulus by the monetary authorities of the regions afflicted such the US or the Eurozone. As it has already mentioned in the Introduction, the Federal Reserve and the European Central Bank did not significantly delay to take action and debase the dollar and the euro through unconventional monetary measures, that is QE, during the COVID-19 pandemic but the economic conditions were not favourable when COVID-19 appeared due to already existing high debt accumulation.

This has led the advanced and modern economies of US and the Euro area for once more to face the dilemma between loss of central bank credibility combined with inflationary pressures on the one hand and the risk of indulging into a new recession on the other. The extraordinary debt levels of the US and the lack of a fiscal union which could deal more effectively regarding the management of the aggregated public debts of the EU member-states as a whole have been at the root of this incapacity to react as effectively as desired.

Since March 2020 the ECB has initiated the Pandemic Emergency Purchase Programme (PEPP) as a new form of lax monetary policy for purchasing risky government bonds. The ECB decided to increase the initial €750 billion envelope for the PEPP by €600 billion on 4 June 2020 and by €500 billion on 10 December, for a new total of €1,850 billion.

Such kind of a policy may *help fiscal authorities by lending non-redeemable money which could fix some of the drawbacks of previous unconventional monetary policy* measures. But what inevitably also comes to the forefront by implementing such kind of policies is the possibility to loss of credibility that monetary authorities face either by renewing debt through QE measures or by throwing money out of the helicopter towards consumers, investors, or the government. Furthermore, the issue of moral hazard is also brought to the surface as firms or citizens could likely become “addicted” to seeking help from the central bank.

Thus, the analysis of this paper as a whole leads us to a question of major importance which lies into whether now is the right time to prevent further debt accumulation through extraordinary monetary measures such as QE or helicopter money drops in order to sustain the transparency of monetary authorities, economic sanity and reduction of income inequalities in the future.

Avenues for future research should include the examination of scenarios of QE measures and helicopter money drops according to differing levels of interconnection between monetary and fiscal authorities. This would enlighten the interested reader about how alternative levels of central bank credibility could serve for fighting the economic consequences of diseases.

Notes

1. In order to understand how corruptive is inflation for the economic growth of an economic in the long run, one has to remember the deep economic depression that Germany under the Weimar Republic faced between 1919 to 1933 due to hyperinflation.

2. <https://www.brookings.edu/research/fed-response-to-covid19/>

3. <https://www.ecb.europa.eu/home/search/coronavirus/html/index.en.html>

4. The Athenian state was run by two main political bodies, the popular *Assembly* of citizens and the *Council of the Five Hundred*. The Assembly met 40 (or even more) times per year and was a decision-making and legislative body where every citizen over 20 years of age could vote on any issue under direct democratic-participatory procedures. Among other duties, the Assembly was taking decisions regarding fiscal and monetary policies of the state (Bitros et al., 2020). The Council was a five hundred member's body which prepared the agenda of issues to be discussed and decided by the Assembly (such as proposed laws, economic policy and foreign policy). It had also administrative duties (Ober, 2008).

5. For the variety and the sophisticated nature of the Athenian banking services see in detail the seminal work of E. Cohen (1992) *Athenian Economy and Society*.

6. There are no cliometric data available for the Athenian economy, however, eminent scholars such as Ober (2015) and Bresson (2016) have so far provided quite convincing arguments that economic growth was indeed achieved in Athens at least for some time during the Classical period.

7. One talent was equal to 6,000 drachmas. As a measure of comparison, the daily wage for a median worker was approximately 1 drachma during the 5th century and 1.5 during the 4th (Loomis, 1998).

8. A detailed analysis regarding the functioning of the *Treasuries of the Temples of Athena and other Gods* actually as banks in favour of the state is provided by Bitros et al. (2020).

9. This narrative reminds us what was going on globally at least to some degree, in the primary months when the COVID-19 pandemic appeared with very characteristic examples such as in Milan, Italy.

10. While the traditional definition of "helicopter money" refers to the transfer of central bank money to households, an extension could include direct transfers from the central bank to companies or to fiscal authorities in order to finance public expenses. The latter form of helicopter money would be equal to monetizing public spending. This could prove to be very useful as a depression-fighting measure, would serve the mandates of monetary authorities for preserving stability but would violate their independent character. Helicopter money drops are based on the notion expressed by Buiter (2005, 2014).

References

- Acton, P. H. (2014). *Poiesis: Manufacturing in Classical Athens*. Oxford: Oxford University Press.
- Ashraf, B. N. (2020). 'Stock markets' reaction to COVID-19: Moderating role of national culture'. *Finance Research Letters*. <https://doi.org/10.1016/j.frl.2020.101857>
- Bitros, G. C., Economou, E.M.L., and Kyriazis, N. C. (2020). *Democracy and money: Lessons for today from Athens in Classical times*. London and New York: Routledge.
- Bresson, A. (2016). 'Aristotle and foreign trade,' in Harris, E. M., Lewis, D. M., Woolmer, M. (Eds.), *The Ancient Greek Economy: Markets, Households and City States*. New York: Cambridge University Press, pp. 41–65.
- Cohen, E. E. (1992). *Athenian economy and society: A banking perspective*. Princeton: Princeton University Press.
- Buiter, W. H. (2005). 'New developments in monetary economics: two ghosts, two eccentricities, a fallacy, a mirage and a mythos'. *The Economic Journal*, 115(502), pp. 1-31.
- Buiter, W. H. (2014). 'The simple analytics of helicopter money: Why it works-always'. *Economics*, 8(2014)-28.
- d' Amico, S., English, W., López-Salido, D., and Nelson, E. (2012). 'The Federal Reserve's large-scale asset purchase programmes: rationale and effects'. *The Economic Journal*, 122(564), pp. 415-446.
- Economou, E. M. L. and N. C. Kyriazis (2017). 'The emergence and the evolution of property rights in Ancient Greece'. *Journal of Institutional Economics*, 13(1), 53–77.
- Economou, E. M. L., and Kyriazis, N. A. (2021). 'Achieving sustainable financial transactions under regimes without a Central Bank. An intertemporal comparison'. *Sustainability*, 13, 1071.
- Economou, E. M. L., Kyriazis, N. C. and Kyriazis, N.A (2021). 'Money decentralization under direct democracy procedures. The case of Classical Athens'. *Journal of Risk and Financial Management*, 14(1), 30. doi.org/10.3390/jrfm14010030
- Finley, M. I. (1973). *The ancient economy*. Berkeley: University of California Press.
- Figueira, T. J. (1998). *The power of money: coinage and politics in the Athenian Empire*. Philadelphia: University of Pennsylvania Press.
- Goodell, J. W. (2020). 'COVID-19 and finance: Agendas for future research'. *Finance Research Letters*, 101512.

- Halkos, G. Kyriazis, N. C. (2010). 'The Athenian economy in the age of Demosthenes: path dependence and change'. *European Journal of Law and Economics*, 29, pp. 255–277
- Halkos, G., Kyriazis, N. C. and Economou, E. M. L. (2021). 'Plato as a Game Theorist towards an International Trade Policy'. *Journal of Risk and Financial Management*, 14, 115. <https://doi.org/10.3390/jrfm14030115>.
- Joyce, M. A., and Tong, M. (2012). 'QE and the gilt market: a disaggregated analysis'. *The Economic Journal*, 122(564), pp. 348-384.
- Kroll, J. H. (2011). 'The reminting of Athenian silver coinage 353 B.C.'. *Hesperia*, 80, pp. 229–259.
- Loomis, W. T. (1998). *Wages, welfare costs and inflation in Classical Athens*. Michigan: Michigan University Press.
- Mamatzakis, E., and Bermpei, T. (2016). 'What is the effect of unconventional monetary policy on bank performance?'. *Journal of International Money and Finance*, 67, pp. 239-263.
- Matousek, R., Papadamou, S. T., Šević, A., and Tzeremes, N. G. (2019). 'The effectiveness of quantitative easing: evidence from Japan'. *Journal of International Money and Finance*, 99, 102068.
- Morens, D., and Littman, R. (1992). 'Epidemiology of the plague of Athens'. *Transactions of the American Philological Association* pp. 122, 271-304.
- Ober, J. (2008). *Democracy and knowledge. Innovation and learning in Classical Athens*. Princeton: Princeton University Press.
- Ober, J. (2015). *The rise and the fall of Classical Greece*. Princeton and Oxford: Princeton University Press.
- Papadamou, S., Kyriazis, N. A., and Tzeremes, P. G. (2019). 'Unconventional monetary policy effects on output and inflation: A meta-analysis'. *International Review of Financial Analysis*, 61, pp. 295-305.
- Platias, A. (2002). 'Grand strategies clashing: Athenian and Spartan strategies in Thucydides', "History of the Peloponnesian War". *Comparative Strategy*, 21(5), pp. 377-399.
- Platias, A. & Trigkas, V. (2021). Unravelling the Thucydides' trap: Inadvertent escalation or War of Choice? *The Chinese Journal of International Politics*, 2021, pp. 1–37. doi: 10.1093/cjip/poaa023
- Sohrabi, C., Alsafi, Z., O'Neill, N., Khan, M., Kerwan, A., Al-Jabir, A., ... & Agha, R. (2020). 'World Health Organization declares global emergency: A review of the 2019 novel coronavirus (COVID-19)'. *International Journal of Surgery*, 76: 71–76.
- Travlos, J. (1971). *Pictorial dictionary of ancient Athens*. New York, Washington: Praeger Publishers.

- Van Alfen, P.G. (2011). 'Hatching owls: Athenian public finance and the regulation of coin production', in F. de Callatay (ed.), *Quantifying Monetary Supplies in Greco-Roman Times*, Bari: Edipuglia, pp. 127-149.
- Van Wess, H. (2013). *Ships and silver, taxes and tribute. A fiscal history of Archaic Athens*. London: I.B. Tauris
- Woolmer, M., (2016), 'Forging links between regions: Trade policy in classical Athens,' in Harris, E. M., Lewis, D. M., Woolmer, M., (Eds.), *The Ancient Greek Economy: Markets, Households and City States*, New York: Cambridge University Press, 66-89.

HOW FAR GASTRONOMICAL TOURISM COULD REACH? EVIDENCE FROM GREECE

G. ZOGRAFOS*

Abstract

Lately there is a lot of discussion about gastronomy and the role it could potentially play in the development of separate forms of tourism, beyond those we could easily recall.

Offering culinary adventures in existing establishments is something we can easily think of. Is however, every establishment appropriate for the offering of gastronomical experience? Furthermore, how gastronomical tourism can be adjusted inside the existing formation of tourism development? What is the target group for such experiences? The role of interpretation of authenticity is of equal importance as well. Authentic recipes could easily form a base for the development of gastronomical tourism.

JEL Classification: R580

Keywords: Gastronomy, local products, recipes, tourism experience, tourism planning

Introduction

Lately there is a lot of discussion about gastronomy and the role it could potentially play in the development of separate forms of tourism, beyond those we could easily recall. There are a lot of questions, actually, which are raised in the occasion of decision making when development of gastronomical tourism comes in planning. The fact that gastronomy is directly related to main forms of tourism experience makes things difficult.

Food is essential for tourists as it would be in order to be active in their daily lives. Consumption of food is essential in order to discover place, the environment of the region, a tourist visits. Food and drink is essential in personal well being for tourists and for their socializing with others. Gastronomy is a way for individuals to get involved in local tourism product and this is why lately there is development of food related tourism attractions such as food festivals, cooking walks, cooking tasting experiences. All those facts underpin the thought that gastronomy is a lot more than dining.

Food is an essential part of economy and links to a big number of fields of

* Adjunct Lecturer, Department of Accounting and Finance, University of Ioannina, Greece, e-mail:georgezografos1@gmail.com

economic activity. Gastronomical tourism has become a big player in the tourism market as gastronomy has become an essential component of the tourism experience. Consumption of food is related to various sectors of the economy as agriculture, fisheries, food producers, a variety of media, entertainment, learning and research. Regeneration of rural areas and of their economies led to the importance of discovery of local identities and the importance of heritage and tradition. Food and drinks as components of local culture directly related to agricultural industries and they set out as means of distinction.

Rise of importance of gastronomy is a part of the globalization process where barriers between cultures are lifted and wellbeing is promoted as a necessity (Zografos, 2016). Other interesting contrasts consistently exist between authenticity and innovation. Culinary culture was an area that it was not promoted until a few years ago. Culinary culture through media has dominated nowadays our lives. In this way it is not weird that gastronomical tourism has been an integral part of the perceived form of tourism.

The academic interest brings together scholarly perspectives from a range of disciplines - from cultural anthropology, sociology, media studies, ethnography, hospitality, food studies, and history, advertising and marketing, to environmental science, rural studies, business management, economics, human geography, and political philosophy. Many aspects of gastronomy and tourism are not well researched as aesthetics, science, technology, innovation, health and human relations (Benini, 2005).

Gastronomy is a cultural element of place and actually is an element which underpins authenticity. Qualities and characteristics of localities are featured in tastes and flavors of local cuisine. Actual information of a place's identity can be showed in a place's cuisine. Food can be means to promote communication as it is an easy way to touch sentiments.

The aim of this paper is to propose a solid framework, a structure for the successful development of gastronomical tourism. For such a case as a subject region, it is used a developed one (in tourism terms) in Northern Greece.

1. Gastronomy, Tourism and Culinary Culture

Gastronomical tourism can be seen as all experiences which can be perceived by a visitor including food carts and street vendors. Of course establishments such as wineries, restaurants, pubs they are all included. Food tourism is defined by the World Food Tourism Association as "The pursuit and enjoyment of unique and memorable food and drink experiences, both far and near."

A gastronomical tourist may have not to travel long in order to obtain

experiences. These might be offered to him or her in the context of the same region. Gastronomical tourism often is called culinary tourism although the word “culinary” might seem elitist to many. A research from the 2016 Food Travel Monitor shows that 93% of travelers can be considered as food travelers (www.foodtourism.com). By that term they are seen as consumers of beverages and dining experiences in the past 12 months. This term includes of course all activities relating to food such as culinary schools or shopping in a gourmet shop. In a sense we are all travelers and eaters as we travel and eat daily.

Types of activities that gastronomical tourists are engaged too are tastings of wines and spirits and eating out in memorable dining experiences. It might be a surprise but according to www.igi.global.com, only 18% of people experiencing food and beverages, they are looking for Gourmet experiences.

There is a common misconception of gastronomical tourism with agrotourism. The latter is a part of rural tourism focusing on farm living and activities, being attractive for inhabitants of nearby urban centers, especially for families with children (Sotiropolou, 2005). On the other hand it seems not being attractive for visitors from abroad.

Offering culinary adventures in existing establishments is something we can easily think of. Is however, every establishment appropriate for the offering of gastronomical experience? Furthermore, how gastronomical tourism can be adjusted inside the existing formation of tourism development? What is the target group for such experiences? Are they tourists that could visit the subject place for sure or what are the relevant features they are attracted of?

The role of interpretation of authenticity is of equal importance as well (Hughes, 1998). Authentic recipes could easily form a base for the development of gastronomical tourism. Gastronomy cannot be seen as a special feature of importance, without relating it to the existing local culture as it is an integral part of it. In such a case, culinary adventures as autonomous events are nothing more than showcases of cultural tourism.

It is for sure that tourists visit destinations. A destination is not only a recipe or a hotel. A destination is an amalgam of traditions and improvements. In such a case gastronomical tourist should “taste” traditions which generated recipes in every step of his /hers journey. In this way gastronomical tourism should be seen as a holistic approach in sensing a place. In the end, it is challenging to find out how gastronomical tourism as a tool of sensing places could be used in creating identities for places (Zografos & Deffner, 2009).

High quality and authenticity are parameters which are necessary for the development of gastronomical tourism. Trend spotting is a key figure in the

development of gastronomical tourism. Development of gastronomical in an area might be a significant factor forcing local development. Key results might be outlined as follows:

- Increase in tourist arrivals
- Increase of sales
- Media coverage
- More tax revenues for local and central governments
- Local pride for the awareness of local food and wine

Food travelers are explorers. They are types of people who like to leave the beaten track and find new experiences for their tastes.

Gastronomical tourism respects local products, local production, respects agriculture and of course local recipes and local cuisines. Gastronomical tourism might be a key factor for the establishment of trends towards the consumption of local products. On the other hand, in places which are full with tourists as the centers of European urban tourism destinations local establishments lose their authenticity as they turn into establishments parts of the theme park which is called city's centre.

Gastronomy can be seen as an amalgam of the place's features (Papathanasiou - Zhurt & Sakellaridis, 2006). History, climate, perceptions, traditions, topography, they are all filtered in a places' gastronomy. What is the way that gastronomy can be a pulling factor in a place's struggle for economic growth? How useful can gastronomy be in a place's effort to change its tourist model? Use of marketing techniques as the introduction of a food festival, or the introduction of a week where selected establishments present their view of local cuisine are tools which are widely used.

Food festivals and weeks dedicated in local cuisine are measures constrained by time. What happens if a gastronomical tourism visits the place in a week where nothing happens? How he or she will get the "message of the development of gastronomical tourism in the place? The fact is that all those initiatives develop local culinary scene which is evolving through the order of those events.

Culinary culture is always the longest-surviving part of a culture and tradition. Attractiveness of tourist destinations nowadays can be set around gastronomy as well. Marketing of gastronomy has evolved in recent years. Tourism businesses that realized the importance to gastronomy tourism given by local and foreign tourists have featured the gastronomic factors in their facilities (Daskalopoulou & Petrou, 2006). Culinary culture was an area that it was not promoted until a few years ago. Culinary culture through media has dominated

nowadays our lives. In this way it is not weird that gastronomical tourism has been an integral part of the perceived form of tourism.

2. Development of Gastronomical Tourism

After having failed to consider environment as an urgent matter in the years of mass and customized tourism, these later forms of tourism are a mix of nature, environment, art, culture, sports music and events. One of the rapidly expanding types of tourism is those which are based on the fragmentation of market demand. Gastronomical tourism is a special form of tourism where tourists can even travel to remote places in order to essence the power of a places' identity through gastronomy (Deffner & Zografos, 2005).

Gastronomical tourism can be developed in various parts of a country or a region even in places where tourist activity is limited (Benini, 2005). It can be successfully combined with other alternative forms of tourism as cultural tourism. It gives the chance for local goods to be exported globally and the chance for local products to be marketed globally. Local cuisine is one of the greatest assets for a country especially in a struggle of increasing number of incoming tourists, and lengthening of season. The development and successful promotion of new types of tourism focusing on place marketing and combined with the establishment of new destinations for the discerning traveler should be one of the main objectives of tourist policies on a strategic basis.

Development of gastronomical tourism in a spatial entity (a city, a region or even a small municipality) has to be part of a holistic strategy. There is no point of promoting gastronomy without focusing on the improvement of quality of local products. The aforementioned protection of authenticity of recipes is of equal importance. Recipes as they come through ages they bring with them local collective DNA. Gastronomical tourism is a form of sustainable tourism because it takes into account three interconnecting issues: Ensuring benefits for local residents, local traditions and social development.

The involvement (Agaraj & Kordha, 2005) of local communities not only benefits the community and the local production but also improves the quality of the local experience. Local communities can become involved in gastronomical tourism operations and in the provision of knowledge, services, facilities and products. These benefits outweigh the cost of the development of tourism to the host community. Local communities view tourism as an excessive development alternative which can enable them to improve their living standards without selling off their culture.

Parameters established for the planning development and operation of

gastronomical tourism should be cross sectional and integrated, involving various groups and sources of power (private and public sector) thus providing the widest possible safeguards for success (Deffner & Metaxas, 2007). An assurance should be forthcoming that all gastronomical participants will follow ethical behavioral rules concerning nature, culture, community value systems, political patterns, social grouping and leadership. Local people should be encouraged to assume leadership roles in planning and development with the assistance from various actors. Development of gastronomical tourism can easily increase a locality's competitiveness.

Development of gastronomical tourism is an issue that has to be carefully treated. At first glance, development of it has to be based on a vibrant restaurants and taverns scene. Those establishments have to work on clear lines that local recipes and local products will be the main force in their cuisines. Without the commitment of all those key actors there would be no sustainable growth of gastronomy as a cultural asset. There are key figures in stimulating the cultivation of a gastronomy based local identity.

3. A Model for the Development of Grasytonomical Tourism in a Greek Region

Perceptions of gastronomical tourism in a region vary accordance to who is talking about it (Zografos, 2018). Beyond that, gastronomical tourism is about images, flairs and stories. Facing the challenge to develop a model for the establishment of gastronomical tourism in a Northern Greek region which is a developed tourist destination, a planner should answer some critical questions:

- What is the background of the region?
- What is the gastronomy of the region?
- What are the key local products of the region?
- Who are going to be the tourist groups targeted?

Developed coastal areas host lots of hotel infrastructure (Zografos & Deffner, 2009). Local hotels face development of gastronomical tourism as an issue which might not be their focus at all. Beyond that, hotel infrastructure does not necessarily mean infrastructure for the development of gastronomical tourism. Tourists come in the area mainly for sea and sun. However, as percentage of travelers interested in local gastronomy rises that seems to be the perfect framework for the development of gastronomical tourism. This happens due to easy targeting of gastronomical tourists from the existing pools of tourists. In this way the first target group is the existing tourists who come in the region for their summer vacations

Second target group might be daily visitors that can be reached out in nearby urban centers. That target groups has as its advantage that they are available throughout the year. Main disadvantage is that they are not tourists, they are visitors. Third target group might be Greek or Foreign travel groups which make tours throughout Greece and they could encompass a stop in the region as a part of the tour for an overnight stay.

Fourth target group and maybe the most important is the one that consists of people who would come into the area either form abroad or from Greek urban centers just to experience gastronomical tourism in the area. This is the target group of food lovers and connoisseurs. If they are attracted in to the region then they will establish the destination as a destination for gastronomical tourism. That is the critical target group. They will not be attracted by something which is fake or of low quality. They search for authenticity and they know well how to reward it.

Taverns, eateries and local establishments constitute the platform where development of gastronomical tourism would stand on. There is enormous capacity for those establishments to upgrade their offerings in order to be acknowledged as gastronomical tourism spots.

Let's map that platform of businesses which are going to co operate and organize the platform for the development of gastronomical tourism

- Wineries
- Taverns
- Restaurants
- Local food products companies

These are businesses which are easy to cooperate under the umbrella of the local Chamber.

It is for sure that another key player which is going to help in a productive way, it is local municipalities. Their involvement should consist especially for the provision of spaces for the hosting of events. Synchronizing all those establishments is not an easy task. First of all acting as an organizing committee local Chamber should set some specifications considering of how quality cooking could be reassured throughout all those cooperating establishments.

The core of the structure should be the use of local products and the reinforcement of local recipes. This is the base where the rest of the image of gastronomical tourism will be built. Introduction of the use of local products is a key element. Those products should be offered to local businesses in discount. In case there are no quality products in a certain category then products of other regions should be introduced.

Another part of the structure will be tours around places which are related

to those flairs recipes and products. Yet, this is another part where there is need of cooperation with local municipalities. Many places which are related to the production of goods need to be accessible. In order to achieve such an accomplishment, funds are needed. A tour with bus, or cycles assumes that places will be friendly for tourists. Otherwise there is no need for the incorporation of a place, in a gastronomical tour's program, even though the place is essential as a showpiece of local food production.

Those tours could be sold through a network of agents. Part of that network might be local travel agencies, hotels, or even internet sites.

Beyond those places which are critical to the local food production, major archaeological sites and monuments of the region, could be interpreted by special guides in accordance with the gastronomical theme of the tour.

3.1. Marketing of the Subject Region as a Gastronomical Tourism Destination

Marketing is very important in tourism. Actually tourism development is all about the successful marketing of created environments. The whole structure that is prescribed above should have as its base its easily marketed character.

Marketing can be done in various ways and first of all as an autonomous event (Deffner & Metaxas, 2007). Tourism exhibitions are always very friendly for such actions (Zografos & Deffner, 2007). A stand in special tourism exhibitions will be always an easy way for promoting the whole structure. Another way is the organized familiarization trips for special journalists. Organization of wine tasting fiestas, long symposia of food and drinks could be an attractive way of gaining publicity in specialized media and internet sites.

Once the whole structure is set, then a clear identity for the region will be established. This is a place where gastronomy flourishes due to local people's perception over its importance. Once the identity is built up then marketing of future tourists will be easier. Marketing to existing tourists in coastal areas seems a twofold action. First of all they might be faced as daily visitors, similar to local peoples for nearby urban centers. It seems as a chance that those tourists might become repeaters and come again in the region mainly as gastronomical tourists and lesser as massive tourism lovers.

The new identity will largely benefit the destination as it will leave its sea and sun tourism identity to a more qualitative, a more cultural and more kaleidoscopic one. In its new identity, people's achievements are the key factor which determines the image and not the quality of natural environment as beaches are. In this way, development of gastronomical tourism will largely

benefit the whole region as a tourist destination and not only those businesses which take part in that cooperation.

Use of media is very important. Nothing compares to the promotion that it can be done for a region than the actual TV images. All that promotion through TV programs and series is the best tool for enhancing recognizability of the region as a gastronomical one. Beyond that authenticity comes again as critical factor to success. Influx of tourists will be disappointed if they come to the subject place and they do not feel the sense of place in their gastronomical experience.

Another key factor for the success of the whole structure is the employment of Online Travel Agents. That is due to their penetration to the global tourist demand. They could be quite useful partners aiming to help local development by promoting in certain ways the action for the establishment of the region as a gastronomical tourist destination. They could make campaigns for example. Use of social media is another field that might be very useful. The structure could have its own presence on social media using existing networking of cooperating businesses.

It is clear that extended coverage of media and social media will thrill the whole procedure, offering unique opportunities for the evolvement of the existing image of the destination. O. T.A. s would interpret that image into demand. Finally, a target to be achieved is that demand for the destination to be demand for gastronomical experiences.

3.2. Incentives for the Development of Local Gastronomy

The whole structure which is proposed for the development of gastronomical tourism in a certain region has as its purpose the growth of local gastronomy through the productive use of local recipes and the enhancement of creative cooking based on those recipes. How all those are going to happen?

- Establishment of prizes is a way of doing that.
- Each year there would be for all cooperating businesses:
- Prize for best cooking
- Prize for best new approach on classic dishes
- Prize for best general performance
- Prize for best quality for local products

There would be each year two major food festivals

- The first one would take place in May
- The second one would take place in September

Food festival would be the venue where all that effort will be shown

publicly. The festival will take place on a certain location outdoors and it has to take place on a certain date. During the festival all cooperating business will be showing their achievements and they will fight for prizes. During the festival there would be a chance for the promotion of local culture.

Conclusions

Development of gastronomical tourism is about the successful interpretation of key intangible assets as gastronomical traditions are. It is also about the successful employment of suitably trained human resources. Gastronomy as part of local traditions incorporates influences from foreign invaders, but it is mainly a solid representation of the place's climate, hydrology, and geography and soil formation.

Undoubtedly the originality of the interpretation, the authenticity of flavors and tastes is a key factor in achieving a well established result of tourism experience. Gastronomical tourists are actually cultural tourists who look for new experiences as far as sensing the place is concerned. In case of a developed tourist destination the effort of moving focus from one massive form of tourism to a more complex, more socially sensitive and responsible is for sure a promising one.

Whatever the mix is between daily visitors and tourists the thing is that local authorities have to promote such actions. Moreover, there is a true need all those actions to be established and monitored in a professional manner by local chamber and the rest of local authorities. Norms of serving and norms of rational food production and consumption have to be pleased. Branding of region as a place of special gastronomy has to be holistically organized with a signage system throughout the region enhancing the special features of the region.

Affection of local communities might be tremendous. Beyond the benefits of local factories producing local goods, all that influx of visitors in the regions tavern and eateries might be a significant reason for the decrease of unemployment or event for the creation of supplement incomes for local families.

There should an organizer for the whole structure, one person who is going to oversee the whole procedure. The structure should be open to whatever establishment would like to join but there should be some minimum prerequisites as far as legality is concerned. Beyond that there should be a space spreading consciousness as to be covered the entire region and not only certain places of it.

Development of gastronomical tourism does not happen alone. It has to be

the natural result of an evolving culture in local society. It has to be the result of an evolution concerning local food production and local entrepreneurship.

References

- Agajah X. Kordha E.(2005) “Ecotourism, a way of developing sustainable tourism”, 551-566. *Mediterranean Tourism beyond the Coastline*. Thessaloniki: Zitis 2005.
- Benini E. (2005) “The sense of tourism in the sense of place”, 229-236. *Mediterranean Tourism beyond the Coastline*. Thessaloniki: Zitis 2005
- Deffner A. Zografos G., (2005) “A place marketing approach for the promotion of the Greek Tourist product”, 673-684. *Mediterranean Tourism beyond the Costaline*. Thessaloniki: Zitis 2005
- Hughes G. (1998). *Tourism and the Semiological Realization of Space*. In Ringer G. (Eds.) *Destinations, Cultural Landscapes of Tourism*. New York: Routledge.
- Sotiropoulou E.C.(2005) “Tourism, appropriation conflicts and the village space”, 249-264. *Mediterranean Tourism beyond the Coastline*. Thessaloniki: Zitis 2005
- Zografos, G. (2016) “Developing tourism in Mediterranean port cities” *Regions*, 303 (3) 21-23.
- Zografos, G. & Deffner, A., (2009). “Dramatic changes in the continuously evolving tourist destinations: The case of Paralia Pieria in Greece”. *Tourismos*, 4, (2) 129-47
- Daskalopoulou, I., and Petrou, A., (2006) “Small Business Performance in Urban Tourism”. (Proceedings of the 46th European Regional Science Association Congress, September (CD-ROM)). Volos, Greece.
- Deffner, A., Metaxas, T. (2007) ‘Developing Place Marketing Pilot Plans (PMPPs) in North and South Europe: A Methodological Approach’ 47th European Regional Science Association Congress. Paris region: September 2007 (CD-ROM).
- Papathanasiou – Zuhrt, D. & Sakellaridis, O., (2006) “Transinterpret II: Transnational Quality Management in Heritage – Interpretation within the framework of C.I. Leader+. The case of Greece”. (Proceedings of the 46th European Regional Science Association Congress, (CD-ROM)). Volos, Greece.
- Zografos G. (2018) “Regional marketing and Places in Crisis”. (Proceedings of the CREATOUR 2nd International Conference: Emerging and Future Trends in Creative Tourism” University of Minho, Braga, Portugal.

- Zografos, G. & Deffner A., (2009). "Using history as a tool for tourist development: Could the organization of an event be the vehicle for that event? Evidence from Greece." (Proceedings of the 4th Scientific Conference 'Planning for the Future – Learning from the Past: Contemporary Developments in Tourism, Travel & Hospitality', (CD-ROM)). Rhodes, Greece.
- Zografos, G. & Deffner, A., (2007). "How does a mega event affect the hosting country's tourist development?" (Proceedings of the 47th European Regional Science Association Congress, (CD-ROM)). Paris, France.

<https://www.igi-global.com/dictionary>

<https://www.foodtourism.com>

LOCALISATION OF THE SDGs: GUIDELINES FOR POLICY-MAKERS ON INTRODUCING THE SUSTAINABLE DEVELOPMENT GOALS TO THE LOCAL GOVERNANCE SCHEME

K. ANTONIADI*

Abstract

Cities have a central role in the national, regional and eventually, global processes towards becoming more sustainable. The paper examines the Sustainable Development Goals (SDGs) since their appearance in 2015. Based on governance and process management principles, it introduces a tailored toolkit, which acts as a guide for policy stakeholders who aim to adopt the SDGs. The city's identity, agenda and capacities are crucial for determining a decision's outcome and consist the first step for efficient policy design. Behavioural change and education are inextricably linked to the transition towards the new era. Localising the SDGs should be seen as a dynamic process that evolves throughout time and adapts to new circumstances.

JEL Classification: D73, I38, J18, O21, Q01, R58

Keywords: Sustainable Development Goals, public administration, local governance, policy management, process management, localization toolkit

1. Introduction

The world is constantly changing. Some needs remain the same while others appear less important in some geographical areas due to their different priorities. According to Brundtland's report:

“Sustainable Development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987).

Based on the aforementioned, there are three main pillars of sustainability that represent the main aspects of human life on the planet. These are economic growth, environmental protection and social equality (WCED, 1987).

* MSc in Sustainability Science & Policy, Maastricht Sustainability Institute, Maastricht University, Project Manager, e-mail: antoniadi.kateriko@gmail.com.

All three are interrelated and interdependent. Thinking schematically, they could be placed on the vertices of a triangle. A change in one of them affects the other two sides. Of course, in reality the described system is much more complex than a simple theoretical approach. Still, this explanation provides a useful first insight on the interlinkage between human society, its activities and the environment (Antoniadis, 2018; 2020).

In year 2015, “the Heads of State and Government agreed to set the world on a path towards sustainable development through the adoption of the 2030 Agenda for Sustainable Development¹. This global development agenda includes 17 Sustainable Development Goals (from now on SDGs), which set out quantitative objectives across the social, economic, and environmental dimensions of sustainable development” (UN SDSN, 2016). With the adoption of the SDGs, countries and cities faced challenges that led to one common question: “How do we operationalize these global goals?” (UN SDSN, 2016). The practical complexity significantly challenges everyone committed to meet the goals of the future.

This paper examines the Sustainable Development Goals under the spectrum of SDG 11 namely, Sustainable Cities and Communities. First, it briefly introduces the history of the 17 SDGs followed by a more detailed analysis of SDG-local applications. Moreover, it presents the United Nations Sustainable Development Solutions Network’s (SDSN) attempts to localize the goals in order to adapt them to the needs and capabilities of local areas and cities. The research continues by focusing on the local governance and presents an approach for SDG-localization from the perspective of policy and procedure management. Based on governance and policy management principles, it introduces a general toolkit with directions for policymakers in pursuit of developing more efficient policies and procedures regarding the effective integration of the SDGs at the local level.

2. Literature Review

2.1. A brief history: from MDGs to SDGs

In year 2000 and after long negotiations and discussions, the United Nations member states agreed upon 8 Millennium Development Goals (MDGs) whose completion would lead to the eradication of severe issues around the world by 2015 (SDGE, no date; United Nations, 2015). The goals seemed to refer to all countries; in reality though, they were considered to be addressing problems that occur mainly in developing countries (United Nations, 2012). Eventually,

the MDGs have been criticized as a vague set of wishes rather than a comprehensive toolkit. There were serious omissions such as human rights, economic development and gender equality while goals such as “ensuring environmental sustainability” remained unclear with regards to their context (Fehling, M. et al, 2013). All the aforementioned were about to change in 2015.

2.2. 2015 and onwards

That year, the countries agreed on a new package of goals called “Sustainable Development Goals” (SDGs). This set of 17 goals seems to be more concrete and addresses challenges worldwide regardless the countries’ level of development. 169 targets accompany them acting like specifiers of what is actually pursued by each goal. Year 2030 is the “new deadline”, the time all goals should have been met at a significant level (United Nations, no date). Moving to the present, it is interesting to examine what the SDG-impact is so far with regards to its presence at the local urban level.²



2.3. Measuring SDGs: what has been done so far? How does it work?

The indicators are complemented by national and regional indicators, which are closer to national and regional priorities. Hence, additional sets of indicators appear in different geographical areas in order to reach a more holistic insight into the country’s or region’s case. National statistical systems are responsible for compiling the data according to fundamental principles and then, share them at a national, regional and global level (SDG AcademyX, 2020). However, the SDSN mentioned serious challenges that need to be examined and taken into consideration in decision-making.

There are official indicators that lack agreed-upon methodologies or available official data. Some countries’ national statistical offices lack the capacity to produce relevant data. There are questions around unofficial sources of data, such as big data or data produced by private tech companies, which provide huge opportunities for measuring crucial SDG indicators, but lack a role in the formal reporting

system. Finally, there are important topics not covered in the official indicator framework –how, for instance, do we measure the “spillover” effect of one country's SDG action on another country's progress (SDG AcademyX, 2020)?

2.4. What happens at the local level?

SDSN realised that “when they produced the country level editions, these did not take into account differences that could exist within the country itself and across different cities.” (SDSN 2019 Report). It is important to understand the central role each city can play in the national, regional and eventually, global process towards becoming more sustainable. With over half of the global population (55.7%) residing in urban areas (The World Bank, 2018) and expecting it to increase to 68% by 2050 (United Nations, 2018), cities are called to take action. At this point, a main question arises: How do we operationalize the global goals? The following section examines ways for approaching the SDGs at the local level. Further, it develops a general toolkit for policy-makers, which can serve as the baseline for adopting new governance schemes.

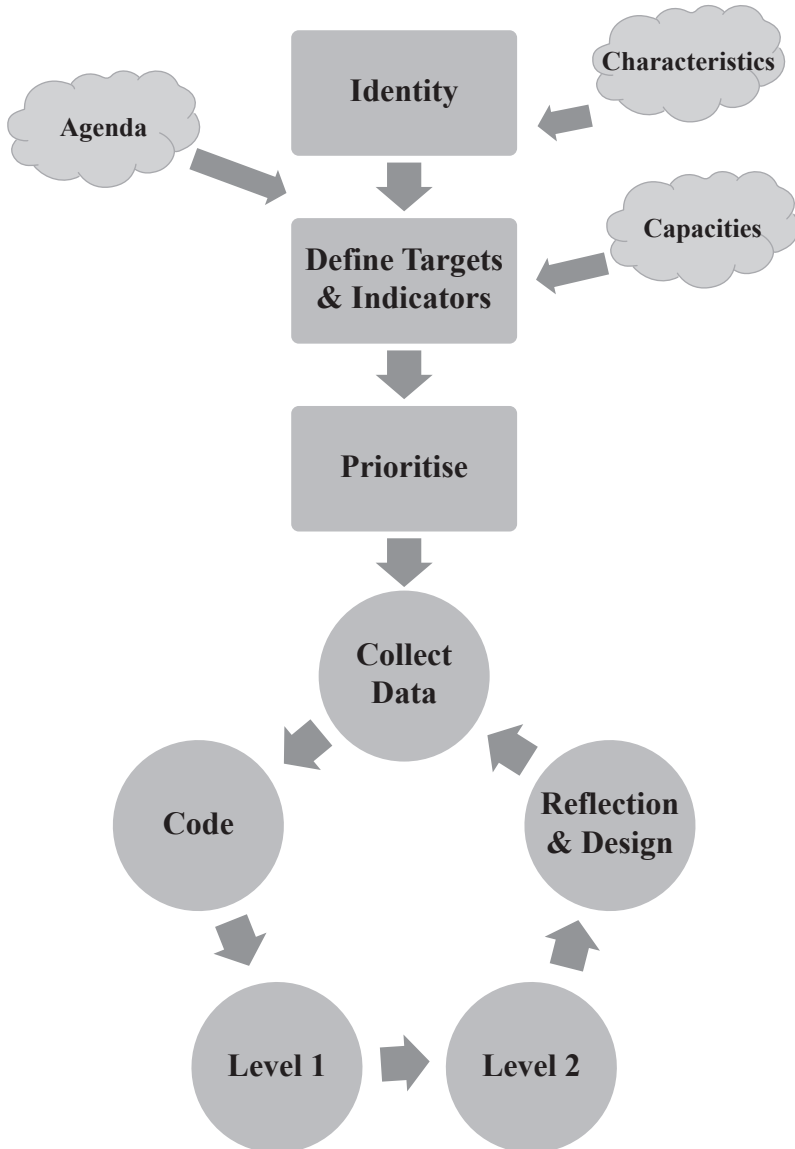
3. Process Management Tool for the SDGs

Introduction to the section

The section introduces a process management toolkit for policy stakeholders in relation to the SDGs. Based on governance and policy management principles and the multifaceted nature of the SDGs, it presents a series of steps that help decision-makers design the most suitable approach and gain a holistic insight on their city's potential. The steps are represented in graph 1 and unfold as follows below.

1. Identity:

It is extremely essential to first define the main characteristics of the examining case as the latter will determine the process' following steps. These characteristics are related to the natural landscape (highland, lowland, seaside etc), natural resources (forest, river, mines etc), climate, locality type (urban, rural), economic activities (primary, secondary, tertiary production sector), social characteristics (population, average age of citizens, active number of citizens etc), main type of governance (top-down, bottom-up etc). It is also important to consider any cultural characteristics that appear in the city as it may help the decision-makers introduce measures and initiatives closer to the citizens' identity.



Graph 1: Steps for Localising the SDGs

Turning the focus to the SDGs, one could argue that based on the city's elements, the decision-makers can define a first set of goals that seem to be more relevant. As a second phase, the city's agenda could be linked to the targets –again based on a first glance–. Note that during the two phases described, no goal or target gets excluded; it just offers a first insight on what is more applicable and relevant to the city.

2. Define relevant targets & indicators:

In the second step, it is time to consider the city's capacities, such as time, personnel, financial resources etc. These will determine the city's ability to insert particular indicators and eventually, adapt others. The United Nations have identified 169 targets for 17 goals. In order to define which targets are demonstrable at the local level, the research used a mapping approach as explained below.

The selection is based on the perception regarding the targets' implementation. There are targets whose realization requires the involvement of national or even international authorities. The local actors may play a crucial role, but the decisions depend on a higher level of governance. Therefore, such targets are not included in the list. In order to recognize a target as *eligible*, it has to be demonstrable at a local level without the need for permission on behalf of higher governing bodies. Hence, a question arises:

Q: Is target A demonstrable at a local level without constraints by higher governing bodies due to dependency?

After collecting all the relevant targets and indicators, the paper examines their “level of connection” with respect to the main SDG-11 targets. It has to be noted, that at this step the focus moves from the target as such to its indicators in order to become more accurate. In other words, there might be targets which have been recognized as “eligible”. However, each target has its own indicators but not all of them can be reached at a local level mainly due to lack of authorship or even resources. Thus, the arising questions are:

q1: Could the examining indicator be integrated at the local level?

This particular question could be either positive or negative. In the first case, the indicator is directly integrated. However, if the question receives a negative answer, a second one appears.

q2: Could the examining indicator be adapted at the local level?

It may be possible to scale down an indicator by adapting some of its features in order to apply it at the local level. However, it may be also possible to lack the necessary tools for data collection thus, even though the city may consider the examining information important, it will not be possible to apply that particular indicator. In such a case, it has been noted that cities can complement the existing indicators by inserting additional “to-the-point” ones.

After having completed the selection of the “eligible” targets and indicators –based on the answers to the previous questions–, policymakers will have a number of x targets and indicators they will be expected to meet. After examining every target and their indicators at the local level, the findings can be incorporated into one new table, which shows all the targets and indicators that could be reached –at least partly– by local and regional authorities. In other words, it would be helpful to re-organise the “eligible” ones by categorizing them in a way that helps decision-makers approach and design relevant policies. Note that the results differ geographically and highly depend on both the city’s characteristics, its agenda and capacities.

Example given:

Keep each target under the relevant goal while recognizing the interconnection they have with targets assigned under a different goal (Table 1).

3. Prioritise:

Every city has its own characteristics and potential as well as needs. Hence, it is reasonable to have different policies and priorities depending on the local demands. It should be noted, that priorities change and adapt to new challenges throughout time. Therefore, it is important to regularly revise the city’s agenda and examine the level of urgency for each goal and target. Likewise, the indicators are not equally urgent everywhere and tend to dynamically change after a certain period of time. The decision-makers are asked to decide on the urgency as it would help understand the indicators’ results in the next steps. Defining and understanding the level of urgency should be based on the city’s identity, agenda and further, capacities. For no reason should the term be seen as a means to degrade or upgrade a particular goal, target or indicator. In an attempt to quantify the aforementioned the following table is recommended:

Table 1: Eligible targets per goal at the local level

The list is indicative and should not be used as such without prior consideration of the specific characteristics a city may have.









Goal	Target	
 1 NO POVERTY	1.4	By 2030, ensure that all men and women have... access to basic services
 3 GOOD HEALTH	3.6	By 2030, halve the number of deaths and injuries from road traffic accidents
 4 QUALITY EDUCATION	4.1	By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes
	4.3	By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university
 6 CLEAN WATER AND SANITATION	6.1	By 2030, achieve universal and equitable access to safe and affordable drinking water
	6.b	Support and strengthen the participation of local communities in improving water and sanitation management
 7 RENEWABLE ENERGY	7.1	By 2030, ensure universal access to affordable, reliable and modern energy services
	7.2	By 2030, increase substantially the share of renewable energy in the energy mix
 11 SUSTAINABLE CITIES AND COMMUNITIES	11*	*Since the paper focuses on urban areas, all targets of goal 11 are eligible.
 12 RESPONSIBLE CONSUMPTION	12.5	By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse Encourage companies to adopt sustainable practices and to integrate sustainability information into their reporting cycle
	12.6	
 13 CLIMATE ACTION	13.1	Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters

Table 2: Levels of Urgency

Score	Level of Urgency
1	Less Urgent
2	Urgent
3	Highly Urgent

4. Collect:

Finding and collecting data is a complicated process that requires time, agility and patience. However, it is necessary in order to understand the city's status, recognize its needs and design proper policies. Collecting data will happen within a certain period of time and will continue after that period for the next one³. In the current paper, there are two columns stating the real and expected data. The "real" column indicates the moment the decision-makers have decided to examine the at-that-moment information. It could be defined on an annual basis but also on a shorter or longer period. The "expected" column shows the tendency for that particular indicator. For example, the goal for the unemployment rates would be to have a reduction. Thus, the tendency would show a reduction.

On the opposite direction, a willingness to increase the percentage of green spaces would have a positive tendency. Sometimes, it can be possible to define the tendency in details in case the decision-makers have certain numerical goals in their agenda. Note though, that it is not necessary to include a number.

5. Code:

As mentioned in the previous step, each indicator gives their own and distinct results, which have a particular meaning for what they represent. These results though, cannot be used altogether in the following steps; it is important to create a common basis and subsequently, avoid potential misinterpretations. Therefore, the Codification phase acts as a transition from the different results to a series of numbers/words which can be studied under a common framework.

There are several ways for coding with the simplest of them being to calculate the percentages. Certainly, someone may use a different approach, which is permitted as long as the indicators are not misused, the results can be properly

Table 3: Example of collected indicators and data

Indicators		Score		
AA		Real ₂₀₁₉	Expected	Real ₂₀₂₀
a1	Proportion of population living in households with access to basic services (water, sanitation, electricity, heating)		↑	
b1	Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities		↑	
b2	Death rate due to road traffic injuries		↓	
f1	Recycling rate, tons of material recycled		↑	
h2	Proportion of population completing mandatory school		↑	
i1	Coverage of protected areas in relation to marine areas		↑	
k9	Proportion of youth (aged 15-24 years) not in education, employment or training		↓	

The table is formed based on one city's identity and having considered its characteristics, the decision-makers' agenda as well as the capacities.

The table below is indicative. It is highly recommended to avoid using it as such without prior consideration of its relevance to the city-case one would like to apply it or without following the previous steps described in this document. No scores are included.

interpreted and there are no biases that could alienate the process. This paper will use the percentage approach in order to keep it less complicated.

At this point, policymakers have a first set of data along with their tendency, the city's capacities and characteristics. Can we stop now? Certainly, once all data are collected, policymakers may decide to work on designing and adopting adaptation plans and policies however, it is wise to add two further steps in order to ensure a better insight regarding indicators and targets as groups.

Combined with other indicators under the same target, would eventually support the development of holistic approaches and plans. In addition, it would

Metric System	Urgency			Comments
	1	2	3	

help identify the causes and factors affecting an examined situation, which would further lead to potentially improved decisions and measures.

6. Level 1:

After having similarly codified data, the indicators can be approached under the same functions.

Parameter:

Weighting based on urgency: there are often indicators that need to be prioritized over others due to decisions by the local authorities. For more information, see “Prioritise” section.

Target 11.1

By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums

$$\frac{\text{SUM of (indicators' scores) * (level of urgency)}}{\text{Number of indicators}} = \frac{(a_1 * i_1) + (a_2 * i_2) + (a_3 * i_3) + \dots + (a_v * i_v)}{x}$$

7. Level 2:

Same procedure as in Level 1, this time for the goal. At this step, instead of inserting the indicators in the function, one has to insert the targets meaning that Level 1 should have been calculated first. The parameter remains the same as previously.

Parameter:

Weighting based on urgency: there are often indicators that need to be prioritized over others due to decisions by the local authorities.

Goal 11

Make cities and human settlements inclusive, safe, resilient and sustainable

$$\frac{\text{SUM of targets' scores}}{\text{Number of targets}} = \frac{A + B + C + \dots + v}{y}$$

8. Reflection & Design:

Reflecting can be both objective and subjective depending on the approach a decision-maker may follow. To begin, objectively one could judge the results “satisfying” or “negative” simply by comparing the numbers representing the facts to those representing the expectations. Such a comparison though, would lack a concrete and clear explanation on the results’ origins as well as factors that affected them. Hence, it is necessary to take into consideration elements such as:

- Implemented policies which may support some targets more than others
- Necessary funding
- Level of collaboration among stakeholders (in terms of communication, resources, discussion etc.)

- Time: the moment of calculation plays a decisive role because every indicator and every target cannot be simultaneously implemented at the same level of success. For example, the number of tons of material recycled every year would need less time to be calculated than that of soil erosion in a city.

9. Arrows:

The arrows stand for repetition. Performance measurement is an iterative process, which supports the dynamic lifespan of a policy, project or activity at a local and regional level. It is important to note that the results might differ in every single stage of a process, mainly due to the factors of time and decision-making. After a certain period of time, decision-makers should keep in mind to re-consider the indicators they are using in order to make sure that most of the aspects of their policy are properly examined. It is possible that there will be no changes in the indicators list and that is of course, acceptable. It is also good to stay informed about the city's characteristics, hence, the city's identity as well as its capacities and agenda. In case of significant changes, it is necessary to re-define the next steps; otherwise, the scheme will be trapped in a vicious cycle based on non-applicable-to reality data.

4. Discussion

The SDGs have been framed in such a way that cover most of –if not all– the human activities and also touch upon environmental and diplomatic issues. The initial arising questions would be how to approach the SDGs and how to operationalise the global goals? The idea would be to adopt the act local-think global concept. This type of bottom-up approach at the governance level (national, sub-national, local) helps accelerate local developments in an active and more engaging manner. A strict top-down centrally controlling scheme tends to get overloaded by the needs of each region and city and even though, it is necessary nation-wide, it's also imperative to be supplemented and facilitated by semi-autonomous local initiatives. Thus, subnational and local authorities are called to develop policies and vulnerability assessment reports (sensitivity, exposure, adaptive capacity, vulnerability) for their designated areas in order to ensure resilience and incorporate SDG aspects. What every stakeholder should keep in mind and carefully consider is how to scale-down the global goals without limiting their potential?

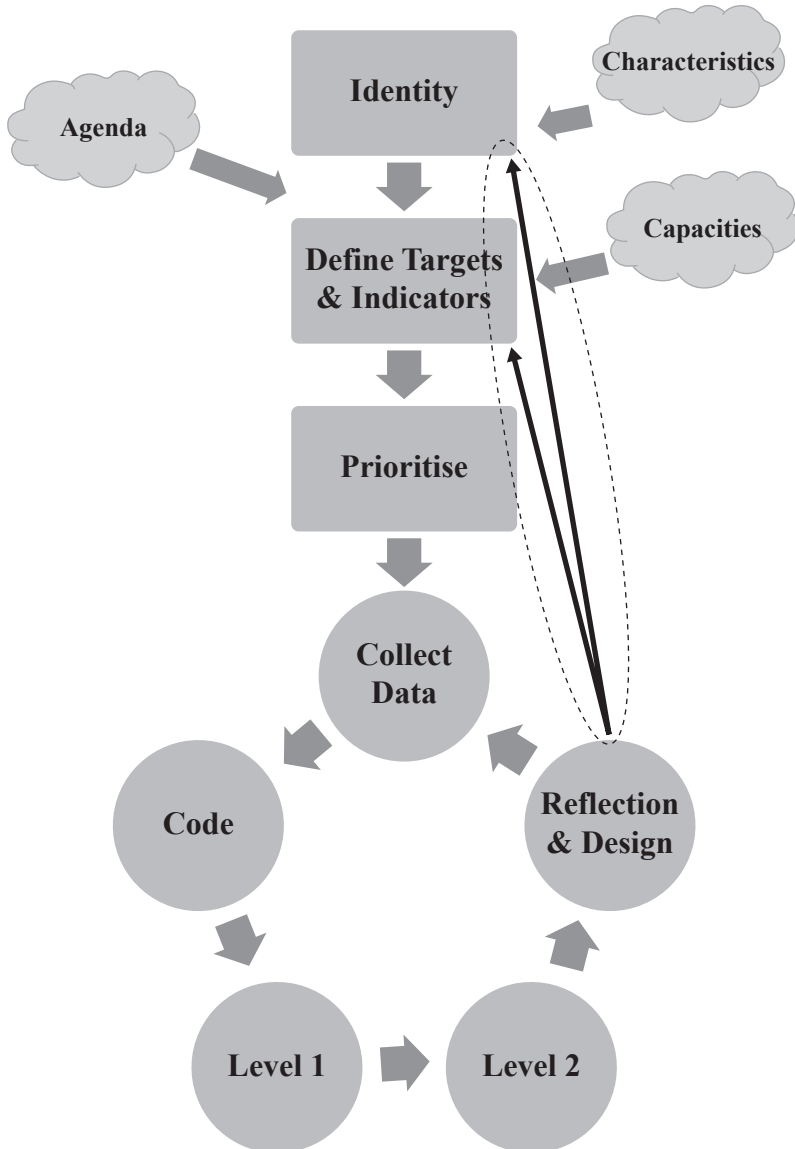
The prior is greatly challenging to be implemented however, not unattainable. Not all targets apply at the local level and not all targets apply at urban

areas with different characteristics. One has to first examine the local identity and carefully define which indices can be incorporated. Such a process needs to be carefully conducted by policy-makers who shall also consider the aims, needs and capacities of their city. It is reasonable to have different policies and priorities depending on the local demands. It should be noted, that priorities change and adapt to new challenges throughout time. Therefore, it is important to regularly revise the city's agenda and examine the level of urgency for each goal (Antoniadi, 2019). Let's keep in mind that focusing on the local level requires expanding networking links in-and-out of the examining geographical borders. In other words, policy-makers are called to regularly communicate with fellow policy-makers from neighbouring or further-located urban centres, in order to learn from each other and provide support and expertise. Collaboration with various stakeholders, open exchange of ideas and knowledge, and active partnerships are necessary to build a solid basis for moving forward.

It is important to keep in mind that localising the SDGs can be an external and internal process. In other words, policymakers are called not only to adopt the SDGs in their city as a whole, but also integrate these goals into the municipality's structure and function. How else would the Municipality become a city leader without adapting its internal operations?

Behavioural change is inextricably linked to the transition towards the new era. Spreading awareness would be the very first step of a long and relatively slow-moving process. Redesigned education and introduction of appealing and –preferably– engaging motives and tools both at an individual and organisational level are fundamental for adapting lifestyles and changing mindsets.

Localising the SDGs should be seen as a dynamic process that evolves throughout time and adapts to new circumstances. There is a high need for consistent planning and management of sustainable policies and procedures. The city's unique identity along with its agenda and capacities are pivotal for effective decision-making. The goals, targets and indicators are dynamic and highly linked to each city. Hence, they may be different between urban areas. Even in the rare occasion of having two cities adopting the exact same goals and targets, the indicators may differ due to the cities' capacities, data needs and nature. Time is also crucial and may affect decisions on goals, targets and indicators as well as the level of urgency for every action. Therefore it is extremely important to monitor the process and repeat by moving back to the initial steps, those of defining goals and examining the city's elements, agenda and capacities.



Graph 1: Iterative cycle for Localising the SDGs

5. Conclusion

Cities have a central role in the national, regional and eventually, global processes towards becoming more sustainable as 80% of the SDG targets contain an urban component (UN Habitat, no date; 2020). However, such transitions are quite complicated especially when they affect business-as-usual procedures and call for behavioural change. The paper introduces a practical toolkit based on policy and procedure management concepts and aims to facilitate the process of localizing the SDGs in local areas. Given the uniqueness of each city, there is still a high need for research and it is crucial to examine real case studies in order to gain a better insight on the challenges and opportunities that emerge before and during the localization process. Case studies will enrich theoretical approaches and they will also encourage the emergence of aspects that did not occur in theory.

Decisions and policies are dynamic processes that need to be assessed in every step of their progress in order to achieve positive results. It is essential to monitor and follow every single step from the design, to the implementation and finally, evaluation and monitor of a decision/policy. Such an approach would provide all the necessary data, which would serve as a “black box” to the particular process –thus, a major help for identifying any related factors and circumstances– but also as a guidance for any future decisions/policies –what lessons can be derived–.

Localising the SDGs will contribute to the city’s balanced, resilient and sustainable transition. And the latter can be successfully achieved through policies designed and implemented by a healthy and dynamic governance scheme.

We need to work together and leave no-one behind, in order to ensure what is called a decent balance on the planet. There is still a long way ahead. Developments of such an extent cannot happen in one day, especially when they require behavioural change. However, it takes only a moment to decide on adopting a different mindset. What is necessary, would be to have a clear and concrete plan (action plan), accompanied by entities’ dedication and willingness to move forward.

Notes

1. For more information, visit <https://sustainabledevelopment.un.org/post2015/transformingourworld>.
2. The global indicator framework includes 231 unique indicators. Note that the total number of indicators listed in the global indicator framework of

SDG indicators is 247. However, twelve indicators repeat under two or three different targets. For more information, <https://unstats.un.org/sdgs/indicators/indicators-list/>

3. Since the process is dynamic in its whole, the same applies to its parts and smaller steps. Hence, data collection should not stop; rather data information should be examined after a certain time-period previously defined by the decision-makers. This way, it will be more efficient to examine the progress and move towards the next steps, those of implementing decisions, having a real-life practical impact and analyse all the relevant results.

References

- Antoniadi, K. (2018). Urban labs as a new form of urban governance: public value creation and its measurement, *Zenodo*, Retrieved from: <http://doi.org/10.5281/zenodo.2431689>
- Antoniadi, K. (2019). Localisation of the SDGs: Guidelines for Policy Makers. *Zenodo*, Retrieved from: <http://doi.org/10.5281/zenodo.3635481>.
- Antoniadi, k. (2020). Urban labs as a new form of urban governance: public value creation and its measurement. *Αρχαίον Οικονομικής Ιστορίας*, 32(1), 65.
- Fehling, M., Nelson, B. D., & Venkatapuram, S. (2013). Limitations of the Millennium Development Goals: a literature review. *Global public health*, 8(10), 1109-1122, doi: 10.1080/17441692.2013.845676.
- SDG AcademyX (2020). *SDGAcademyX: SDGi001 – Measuring Sustainable Development*, edX Platform, Retrieved from: <https://learning.edx.org/course/course-v1:SDGAcademyX+SDGi001+2T2020/block-v1:SDGAcademyX+SDGi001+2T2020+type@sequential+block@b948e590d0ce43e4ad8cef01ceed6407/block-v1:SDGAcademyX+SDGi001+2T2020+type@vertical+block@13307fabb65340e580fd862e70f20b19>
- SDGF (no date). *From MDGs to SDGs*. Retrieved from: <https://www.sdgfund.org/mdgs-sdgs>
- The World Bank (2018). *Urban population: % of total population*. United Nations Population Division. World Urbanization Prospects: 2018 Revision, Retrieved from: <https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?end=2019&start=1960&view=chart>
- UN Habitat. (no date). *Sustainable Development Goals Cities*. Retrieved from: <https://unhabitat.org/programme/sustainable-development-goals-cities>
- UN Habitat. (2020). *National sample of cities: a model approach to monitoring*

- and reporting performance of cities at national level*. Retrieved from: https://unhabitat.org/sites/default/files/2020/06/national_sample_of_cities_english.pdf
- UN SDSN (2016). *Getting started with the SDGs in Cities: A Guide for Local Stakeholders*, Retrieved from: <https://sdgcities.guide/>
- United Nations (no date). *The 17 Goals, Department of Economic and Social Affairs: Sustainable Development*, Retrieved from: <https://sdgs.un.org/goals>.
- United Nations, (2012), Review of the contributions of the MDG Agenda to foster development: lessons for the post-2015 UN Development Agenda, *UN System Task Team on the post-2015 UN Development Agenda*, Retrieved from: https://www.un.org/en/development/desa/policy/untask-team_undf/group_a_mdg_assessment.pdf
- United Nations (2015). *The Millennium Development Goals Report*, Retrieved from: [https://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20\(July%201\).pdf](https://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20(July%201).pdf)
- United Nations (2018). *68% of the world population projected to live in urban areas by 2050, says UN*, United Nations Department of Economic and Social Affairs, Retrieved from: <https://www.un.org/development/desa/en/news/population/2018-revision-of-world-urbanization-prospects.html>

AIMS AND SCOPE

With our semi-annual edition we aim to present the exploratory work of experienced economists as well as economists of the younger generation who take an active interest in economic life and economic thought as well as their development.

Above all the *Archives of Economic History* will endeavor to shed some light on the course of economic policy and economic thought based on historical material.

In order to render its mission more complete, the *Archives of Economic History* will include the publication of selected double blind peer reviewed papers of general scientific interest cited in the Journal of Economic Literature (JEL) classification system.

The *Archives of Economic History* is indexed/abstracted in the electronic bibliographies of the American Economic Association since 1995 and in the Greek Reference Index for the Social Sciences and Humanities (GRISSH) since 2015.

AUTHORS GUIDELINES

The submitted papers must be original work without prior publication or currently being considered for publication, and will be approved by two specialists. The following conditions and procedures for the articles submission should be taken into consideration:

1. Articles must be written in English and submitted in MS-Word (doc or docx).

Their length should not exceed a maximum of 30 pages. A complete article should contain two files: the abstract file (maximum length: 120 words) and a main body text file.

2. On the first page of the abstract file the following information should be printed:

- a. Title of the article
 - b. Author's/Authors' name and surname (in capital letters)
 - c. Name of Institution and Department where the author is employed
 - d. Author's contact details: mailing address, telephone number and e-mail address. The code of classification of the submitted article should appear after the abstract according to the JEL classification system, and should be no more than 6 keywords.
- 3. Only the title of the article** should appear at the top of the first page of the main body text file. All papers should be submitted to: akiohos@otenet.gr
- 4. Acknowledgements of references** of the original source of the articles should appear after the endnotes and before the bibliographical references.
- 5. Tables or Graphs** should be written clearly and their size should not exceed a regular A4 page. They should also be entitled and numbered accordingly (e.g. "Table 1:," "Graph 1:" etc.)
- 6. Paragraphs** must be numbered in Arabic numbers, starting from introduction (e.g. 1, 1.1, 1.2, 2, 2.1, 2.2 etc.).
- 7. The article** should be accompanied by the bibliography directly relevant to its subject. Footnotes should be consecutively numbered and appear at the end of the article, before the bibliographical references.
- 8. The formulae** should follow a consecutive numbering on the right hand side of the page.
- 9. Quotations cited in the main text or in the footnotes** include the surname of the author, the year of publication and specific page numbers, for example: (Elton, 1967) or (Montesano and Brown, 2008) citing both names of two, or (Viaggi et al., 1991), when there are three or more authors.

Bibliographical references on the last page of the article should be written in alphabetical order, as follows:

- i) **For books:** e.g. Strunk, W., and White, E. B. (1979). *The elements of style*. (3rd ed.). New York: Macmillan.
- ii) **For articles:** e.g. Van der Geer, J., Hanraads, J. A., and Lupton, R. A. (2000). 'The art of writing a scientific article'. *Journal of Scientific Communications*, 163 (1), pp. 51–59.

10. Among the articles submitted, those that fulfill the above criteria are forwarded to referees for assessment.

11. Failure to apply the above terms will result in the rejection of the article or its return to the author for review and editing.

12. The author is informed whether or not the article submitted has been accepted or will be accepted upon improvements made based on the comments of the referee or the editorial board. When the author has completed the proofs reading of the articles no further additions or changes to the text are allowed.

13. Failure to a timely submission of the proofread article directly means that the article will not be included in the current issue.

14. Articles under review should be submitted to the following address: Professor Petros A. Kiochos, Editor in Chief of the Archives of Economic History, 84 Galatsiou avenue, Athens 111 46, Greece, **Tel. No.** (+30) 210-2910866 or, (+30) 693-7244739. Alternatively papers may be submitted to: akiohos@otenet.gr