## CONTENTS - ΠΕΡΙΕΧΟΜΕΝΑ

# EXPORTS AND ECONOMIC GROWTH AN EMPIRICAL STUDY

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## Abstract

This study examines the short-run and long-run relationship between exports and economic growth for USA for the period 1970-2017 estimating a vector error correction model. The main goal of this study was to investigate the relationship between exports and economic growth applying the three different cointegration techniques based on panel unit roots tests theory. Specifically, Fully Modified Ordinary Least Squares (FMOLS), Dynamic Ordinary Least Squares (DOLS) and Canonical Cointegration Regression (CCR) techniques presented the same empirical conclusions taking into account Engle Granger and Phillips-Quilaris methodology. The empirical results indicated that there is a short-run and long-run relationship between exports and economic growth for USA for the examined period.

*JEL Classification: O11, C22*

*Keywords: exports, economic growth, panel unit roots tests, cointegration analysis, vector error correction model*

## 1. Introduction

The relationship between exports and economic growth has been an extensive subject of empirical research. The theoretical ambiguity on the positive effect of exports is reflected in the modern empirical literature. The export-led growth hypothesis identifies the positive and significant relationship between exports and economic growth. Some researchers pointed out the strongly positive effects of exports on economic growth (Lucas, 1988, Romer, 1990, Grossman and Helpman, 1991, Chang et al 2009).

Giles and Williams (1999) presenting a theoretical survey related to export-led growth hypothesis refer that "*an exports expansion may*

- *promote specialization in the production of exports products leading to higher productivity level*
- *cause reallocation of resources from inefficient non trade sector to the higher productive export sector*

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- *increase real output*
- *loosen foreign exchange constraints*"

Many empirical studies investigated the interrelation between exports and economic growth estimating different statistical techniques, data sample or econometric models resulting to the same conclusion. That is, "*export-led growth may only arise after a certain level of development has been achieved*" (Ram 1985, De Gregorio 1992, Giles and Williams, 1999). Some researchers support that the export-led growth hypothesis is based on the structural characteristics of each economy Grossman and Helpman (1991) comparing developed countries with less developing countries. An export growth increases productivity gains and output growth taking into account the imposition of tariffs policy in domestic market products.. The empirical studies are discriminated by the different statistical methods that are used in order to investigate the relationship between exports and economic growth, such as cross sectional data analysis, time series analysis based on unit roots theory and estimations of linear regression models by using mainly ordinary least squares method. (Feder, 1983, Esfahani 1991, McNab and Moore, 1998).

This empirical study has the following two objectives:

- To examine the interrelation between exports and economic growth using panel unit series theory
- To test the existence of cointegration between exports and economic growth estimating three different techniques based on Engle Granger and Phillips Quilaris methodology.

The remainder of the paper proceeds as follows: Section 2 describes the specification of the model, analyses some different cointegration techniques based on panel unit roots tests theory and finally develops the vector error correction models, while section 3 presents the empirical results. Finally, section 4 provides the conclusions of this paper.

## 2. Data and Methodology

### 2.1. Data analysis

In this study the method of vector autoregressive model (VAR) is applied to estimate the empirical relationship between exports and economic growth. Suppose that a general vector model can be estimated separately, regarding each variable as a dependent one with other independent variable respectively.

V = f (X, Y)                                                                 (1)

where X = exports, Y = gross domestic product

Following the empirical studies of Katsouli (2003), and Dritsaki et al (2004), Chang (2002), Chang and Caudill (2005), Chang et al (2009), Vazakidis and Adamopoulos (2010), Adamopoulos and Vazakidis (2013), Adamopoulos (2014), the variable of economic growth (Y) is measured by the rate of change of real GDP, while exports are expressed as percentage of real GDP (X). The data that are used in this analysis are annual, covering the period 1970-2017 for USA, regarding 2010 as a base year. All time series data are used in their real values and are obtained from International Stock Statistics, (International Monetary Fund, 2017). The graphs of examined variables are presented as follows (Figure 1). The Eviews 9.0 (2015) software is used to conduct the empirical results.

The statistical data are expressed in their levels in first row and in their first differences in second row, where exports are symbolized by X and economic growth is symbolized by Y and finally DX, DY are the examined variables transformed into their first differences respectively.

## 2.2 Descriptive statistics

The basic descriptive statistics measures of examined variables for their levels and first differences appear in the following histograms (Figure 2).

Also, the correlograms of gross domestic product indicate that there is a problem in autocorrelation test both in levels and in first differences, but for exports exists autocorrelation problem only in levels (Figure 3).

## 2.3. Panel unit roots

Following the study of Christopoulos and Tsionas (2004), Levin, Lin, and Chu (2002) denoted as LL panel unit root tests consider the following default ADF specification:

$$\Delta y_{it} = \alpha y_{it-1} + \sum_{j=1}^{pi} \beta_{ij} \Delta y_{it-j} + X'_{it} \delta + \varepsilon_{it}$$

where suppose a common $\alpha = \rho\text{-}1$ but allow the lag order for the difference terms, $p_i$ to vary across cross-sections.

In LL panel unit root test, the null hypothesis is the existence of a unit root (H0: a=0), while under the alternative, there is no unit root (H1: a<0)[1]. If the

**Figure 1: Graphs of examined variables in their levels and first difference**



Y



X

## DY



## DX
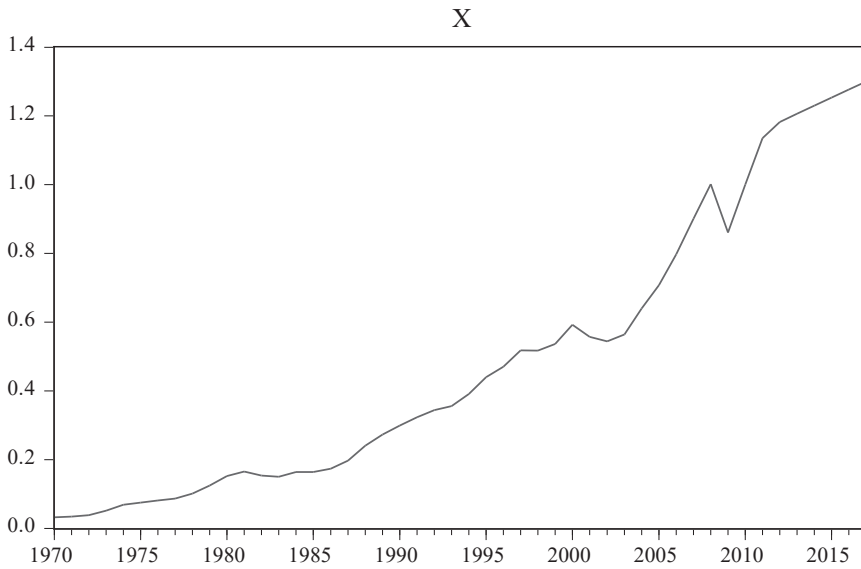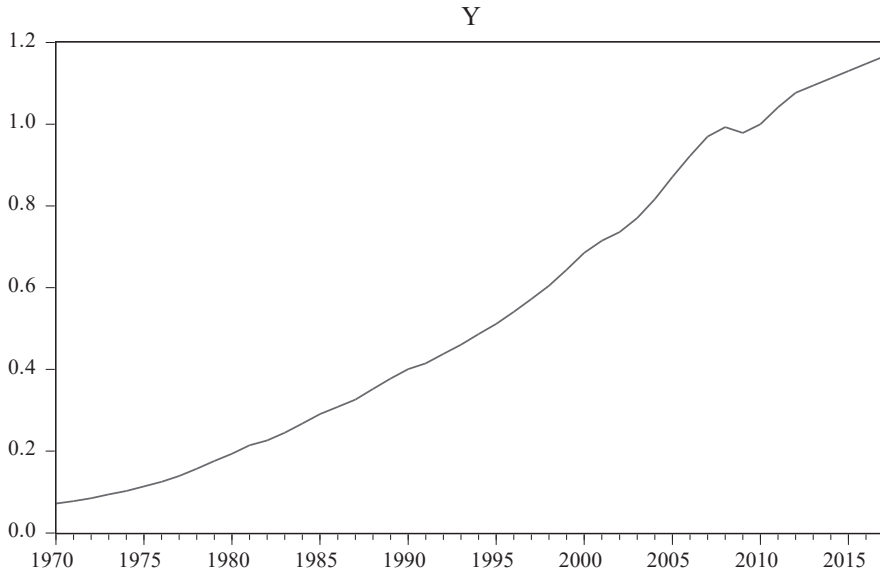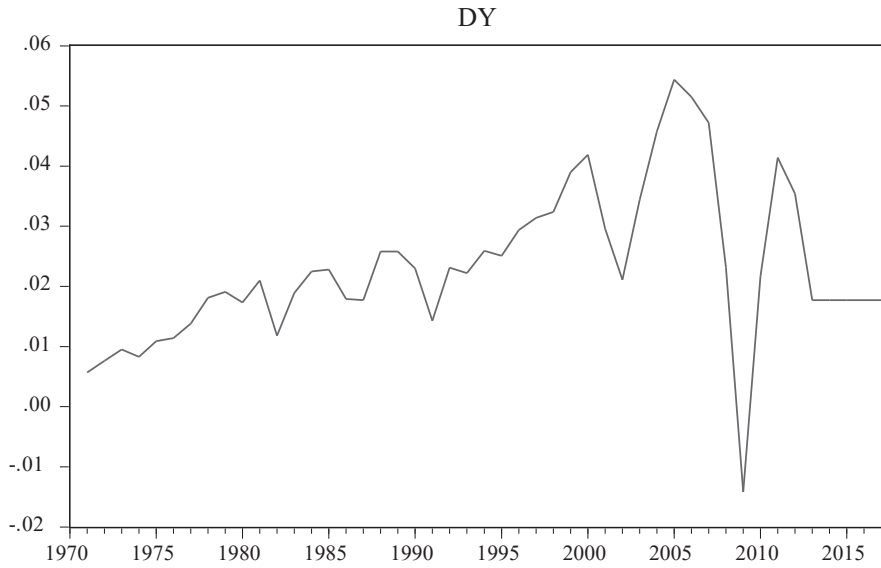
## Figure 2: Histograms and descriptive stats for examined variables for their levels and first differences



Series: Y
Sample 1970 2017
Observations 48

| | |
|---|---|
| Mean | 0.546698 |
| Median | 0.473250 |
| Maximum | 1.165300 |
| Minimum | 0.071800 |
| Std. Dev. | 0.361781 |
| Skewness | 0.314293 |
| Kurtosis | 1.700304 |
| Jarque-Bera | 4.168660 |
| Probability | 0.124390 |



Series: X
Sample 1970 2017
Observations 48
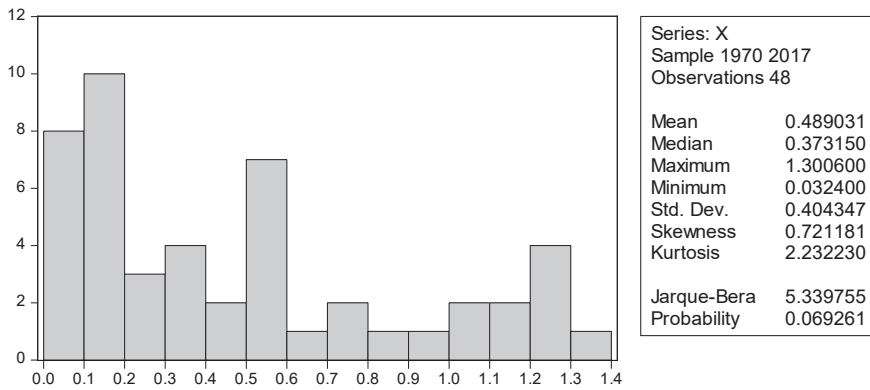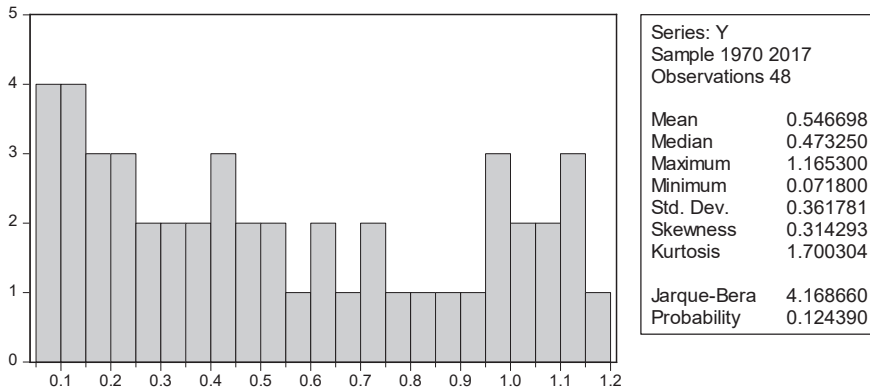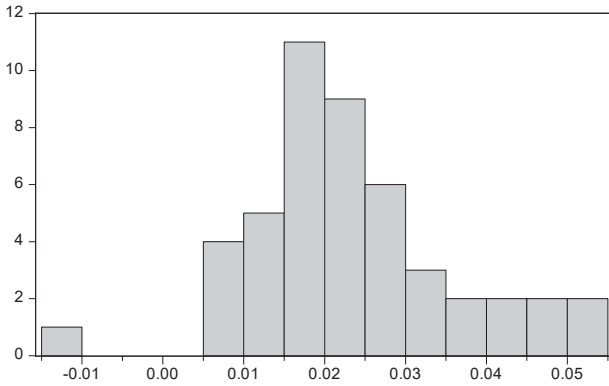
| | |
|---|---|
| Mean | 0.489031 |
| Median | 0.373150 |
| Maximum | 1.300600 |
| Minimum | 0.032400 |
| Std. Dev. | 0.404347 |
| Skewness | 0.721181 |
| Kurtosis | 2.232230 |
| Jarque-Bera | 5.339755 |
| Probability | 0.069261 |

| | |
|---|---|
| Series: DY | |
| Sample 1970 2017 | |
| Observations 47 | |
| | |
| Mean | 0.023266 |
| Median | 0.021700 |
| Maximum | 0.054400 |
| Minimum | -0.014200 |
| Std. Dev. | 0.012842 |
| Skewness | 0.238621 |
| Kurtosis | 3.918727 |
| | |
| Jarque-Bera | 2.098979 |
| Probability | 0.350116 |



| | |
|---|---|
| Series: DX | |
| Sample 1970 2017 | |
| Observations 47 | |
| | |
| Mean | 0.026983 |
| Median | 0.023500 |
| Maximum | 0.139300 |
| Minimum | -0.140500 |
| Std. Dev. | 0.043655 |
| Skewness | -0.314580 |
| Kurtosis | 7.315827 |
| | |
| Jarque-Bera | 37.25183 |
| Probability | 0.000000 |
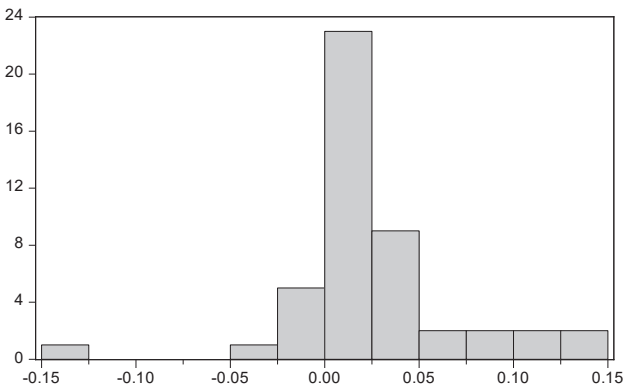
## Figure 3: Correlograms of Y (economic growth) and X (exports) in their levels and first differences

| Correlogram of Y | | | | | | | |
|---|---|---|---|---|---|---|---|
| Date: 04/10/18 Time: 18:18 Sample: 1970 2017 Included observations: 48 | | | | | | | |
| **Auto-correlation** | **Partial Correlation** | | | **AC** | **PAC** | **Q-Stat** | **Prob** |
| | | 1 | | 0.948 | 0.948 | 45.880 | 0.000 |
| | | 2 | | 0.893 | -0.053 | 87.492 | 0.000 |
| | | 3 | | 0.836 | -0.048 | 124.79 | 0.000 |
| | | 4 | | 0.778 | -0.047 | 157.77 | 0.000 |
| | | 5 | | 0.717 | -0.051 | 186.48 | 0.000 |
| | | 6 | | 0.655 | -0.052 | 210.98 | 0.000 |
| | | 7 | | 0.593 | -0.036 | 231.54 | 0.000 |
| | | 8 | | 0.531 | -0.029 | 248.48 | 0.000 |
| | | 9 | | 0.470 | -0.044 | 262.05 | 0.000 |
| | | 10 | | 0.404 | -0.080 | 272.36 | 0.000 |
| | | 11 | | 0.338 | -0.046 | 279.79 | 0.000 |
| | | 12 | | 0.275 | -0.021 | 284.84 | 0.000 |
| | | 13 | | 0.215 | -0.023 | 288.01 | 0.000 |
| | | 14 | | 0.158 | -0.013 | 289.78 | 0.000 |
| | | 15 | | 0.105 | -0.017 | 290.58 | 0.000 |
| | | 16 | | 0.054 | -0.030 | 290.80 | 0.000 |
| | | 17 | | 0.003 | -0.048 | 290.80 | 0.000 |
| | | 18 | | -0.046 | -0.038 | 290.97 | 0.000 |
| | | 19 | | -0.091 | -0.017 | 291.65 | 0.000 |
| | | 20 | | -0.133 | -0.019 | 293.16 | 0.000 |

| Correlogram of X | | | | | | | |
|---|---|---|---|---|---|---|---|
| Date: 04/10/18 Time: 18:21 Sample: 1970 2017 Included observations: 48 | | | | | | | |
| **Auto-correlation** | **Partial Correlation** | | | **AC** | **PAC** | **Q-Stat** | **Prob** |
| | | 1 | | 0.936 | 0.936 | 44.703 | 0.000 |
| | | 2 | | 0.869 | -0.052 | 84.094 | 0.000 |
| | | 3 | | 0.802 | -0.039 | 118.38 | 0.000 |
| | | 4 | | 0.732 | -0.055 | 147.63 | 0.000 |
| | | 5 | | 0.661 | -0.058 | 172.00 | 0.000 |
| | | 6 | | 0.587 | -0.055 | 191.72 | 0.000 |
| | | 7 | | 0.515 | -0.043 | 207.22 | 0.000 |
| | | 8 | | 0.451 | 0.029 | 219.43 | 0.000 |
| | | 9 | | 0.399 | 0.043 | 229.22 | 0.000 |
| | | 10 | | 0.331 | -0.168 | 236.12 | 0.000 |
| | | 11 | | 0.271 | 0.022 | 240.90 | 0.000 |
| | | 12 | | 0.219 | 0.005 | 244.10 | 0.000 |
| | | 13 | | 0.173 | 0.004 | 246.15 | 0.000 |
| | | 14 | | 0.131 | -0.010 | 247.37 | 0.000 |
| | | 15 | | 0.096 | 0.015 | 248.04 | 0.000 |
| | | 16 | | 0.060 | -0.041 | 248.32 | 0.000 |
| | | 17 | | 0.019 | -0.097 | 248.34 | 0.000 |
| | | 18 | | -0.028 | -0.108 | 248.40 | 0.000 |
| | | 19 | | -0.069 | 0.034 | 248.79 | 0.000 |
| | | 20 | | -0.108 | -0.042 | 249.80 | 0.000 |

**Correlogram of DY**

Date: 04/10/18 Time: 18:24 Sample: 1970 2017 Included observations: 47

| Auto-correlation | Partial Correlation | | AC | PAC | Q-Stat | Prob |
|---|---|---|---|---|---|---|
| | | 1 | 0.636 | 0.636 | 20.279 | 0.000 |
| | | 2 | 0.218 | -0.315 | 22.710 | 0.000 |
| | | 3 | 0.102 | 0.224 | 23.257 | 0.000 |
| | | 4 | 0.189 | 0.124 | 25.175 | 0.000 |
| | | 5 | 0.263 | 0.076 | 28.966 | 0.000 |
| | | 6 | 0.328 | 0.218 | 35.017 | 0.000 |
| | | 7 | 0.346 | 0.076 | 41.908 | 0.000 |
| | | 8 | 0.184 | -0.181 | 43.899 | 0.000 |
| | | 9 | -0.017 | -0.067 | 43.916 | 0.000 |
| | | 10 | -0.049 | 0.001 | 44.066 | 0.000 |
| | | 11 | 0.032 | -0.054 | 44.130 | 0.000 |
| | | 12 | -0.013 | -0.218 | 44.141 | 0.000 |
| | | 13 | -0.059 | 0.054 | 44.376 | 0.000 |
| | | 14 | -0.062 | -0.071 | 44.646 | 0.000 |
| | | 15 | -0.043 | 0.060 | 44.776 | 0.000 |
| | | 16 | -0.057 | 0.036 | 45.018 | 0.000 |
| | | 17 | -0.080 | -0.027 | 45.514 | 0.000 |
| | | 18 | -0.052 | 0.077 | 45.725 | 0.000 |
| | | 19 | -0.087 | -0.080 | 46.345 | 0.000 |
| | | 20 | -0.128 | 0.016 | 47.749 | 0.000 |

| Correlogram of DX | | | | | | | |
|---|---|---|---|---|---|---|---|
| Date: 04/10/18 Time: 18:25 Sample: 1970 2017 Included observations: 47 | | | | | | | |
| **Auto-correlation** | **Partial Correlation** | | | **AC** | **PAC** | **Q-Stat** | **Prob** |
| | | 1 | | 0.046 | 0.046 | 0.1053 | 0.746 |
| | | 2 | | -0.113 | -0.115 | 0.7580 | 0.685 |
| | | 3 | | 0.093 | 0.106 | 1.2150 | 0.749 |
| | | 4 | | 0.129 | 0.108 | 2.1094 | 0.716 |
| | | 5 | | 0.001 | 0.011 | 2.1095 | 0.834 |
| | | 6 | | 0.062 | 0.081 | 2.3243 | 0.888 |
| | | 7 | | 0.113 | 0.088 | 3.0564 | 0.880 |
| | | 8 | | 0.113 | 0.111 | 3.8160 | 0.873 |
| | | 9 | | -0.163 | -0.174 | 5.4304 | 0.795 |
| | | 10 | | -0.002 | 0.004 | 5.4308 | 0.861 |
| | | 11 | | 0.115 | 0.039 | 6.2816 | 0.854 |
| | | 12 | | -0.052 | -0.069 | 6.4584 | 0.891 |
| | | 13 | | -0.016 | 0.030 | 6.4747 | 0.927 |
| | | 14 | | -0.034 | -0.091 | 6.5555 | 0.950 |
| | | 15 | | 0.019 | 0.032 | 6.5817 | 0.968 |
| | | 16 | | 0.109 | 0.133 | 7.4677 | 0.963 |
| | | 17 | | 0.029 | 0.059 | 7.5301 | 0.976 |
| | | 18 | | -0.003 | -0.000 | 7.5310 | 0.985 |
| | | 19 | | 0.010 | -0.016 | 7.5393 | 0.991 |
| | | 20 | | -0.011 | 0.005 | 7.5497 | 0.994 |

time series are non-stationary in their levels, they can be integrated with integration of order 1, when their first differences are stationary.

Im, Pesaran and Shin (1997) panel unit root test denoted as IPS respectively result to the same conclusion. Based on Dickey-Fuller test the null hypothesis in IPS test defines that there is existence of a unit root, whlie under the alternative there isn't any unit root.[2] Kiran et al (2009) found that IPS suffers a dramatic loss of power when individual trends are included, and the test is sensitive to the specification of deterministic trends.

According to Breitung (1999) the IPS unit root test suffers from main loss of power when individual trends are included in the model, showing that the test is quite sensitive to the specification of deterministic trends. The Breitung panel unit root test supposes that there is a common unit root procedure so that $\rho_i$ consists identical across cross-sections. The null hypothesis defines that there is a unit root, while the alternative implies that there isn't any unit root in time series. LLC and Breitung panel unit roots tests examine the same ADF regression.[3]

The null hypothesis of Breitung panel unit root test denotes that the resulting estimator $a^*$ is asymptotically normally distributed. In contrast with LLC, the Breitung panel unit root test is specified mainly by the exogenous regressors and the number of lags for each cross section ADF estimated equation avoiding kernel computations. The Eviews 9.0 (2015) software package which is used to conduct the panel unit roots tests, reports the simulated critical values based on response surfaces. The results of panel unit roots tests (LLC and IPS, Breitung) for each variable appear in Tables 1a, 1b.

Following the study of Hadri (2000) Hadri panel unit root test has similarities with the Kwiatkowski, Phillips, Schmidt, and Shin (1992) (KPSS). Null hypothesis denotes that there is not any unit root in time series while the alternative defines existence of a unit root[4]. According to Hlouskova and Wagner (2006), the Hadri statistic test requires the estimation of residuals derived from the Ordinary Least Squares regression of $y_{it}$ either with a constant, or both with constant and time trend in the following equation as follows:

$$y_{it} = d_i + h_i t + e_{it} \quad ^5$$

## 2.4. Cointegration analysis: Fully modified ordinary least squares method (FMOLS)

Phillips and Hansen (1990) introduced fully modified ordinary least squares method for estimation of cointegrated regressions. Taking into account that

time series are integrated of order 1 based on panel unit roots theory, this method improves the ordinary least squared estimators related to serial correlation, corrects the endogeneity of repressors and defines the existence of cointegrated relationship of examined variables. The FMOLS estimator derives from the construction of the long run covariance matrices estimators $\Omega$ and $\Lambda$ based on estimated residuals. Therefore, it is calculated by the following form[6]

$$\hat{\theta} = \begin{bmatrix} \hat{\beta} \\ \hat{\gamma} \end{bmatrix} = \left(\sum_{t=1}^{T} Z_t Z'_t\right)^{-1} \left(\sum_{t=1}^{T} Z_t y_t^* - T \begin{bmatrix} \hat{\lambda}_{12}^* \\ 0 \end{bmatrix}\right)$$

### Dynamic Ordinary Least Square (DOLS) method

Stock & Watson (1993) introduced an unbiased (DOLS) estimator of the long-run parameters in order to achieve an adequate adjustment in cointergrating error term including the past and the future values of the differenced I(1) regressors, since it is asymptotically normally distributed. The DOLS estimator is calculated by the following form[7]

$$y = X'_t \beta + D'_{1t} \gamma + \sum_{j=-q}^{r} \Delta X'_{t+j} \delta + \upsilon_{1t}$$

### Canonical Cointegration Regression (CCR) method

Finally Park (1992) introduced the Canonical Cointegrating Regression (CCR) estimator in order to investigate the existence of cointegrating relations in estimated regressions. The basic difference with the previous estimators is the elimination of the long run dependence between the cointegrating equations errors and stochastic regressors innovations[8].

Therefore, the CCR estimator is calculated by the following form[9]

$$\hat{\theta}^* = \begin{bmatrix} \hat{\beta} \\ \hat{\gamma} \end{bmatrix} = \left(\sum_{t=1}^{T} Z_t^* \ Z_t^{*'}\right)^{-1} \left(\sum_{t=1}^{T} Z_t^* y_t^*\right)$$

### Engle-Granger cointegration analysis

Engle and Granger (1987) developed a two stage approach in order to investigate the existence of cointegration between the examined variables. The null hypothesis defines the non existence of cointegration against the alternative of existence of cointegration in examined variables. The estimated residuals in a regression model have the following form[10]

$$u \ = \ \hat{\rho}u_{t-1} + \hat{\varepsilon}_t$$

if $\left|\hat{\rho}\right| < 1$ under the alternative hypothesis there is existence of cointegration. Engle-Granger two-step approach determines the order of integration of examined variables and specifies the dynamic behaviour of the regression model by using an error correction term. The size of the error correction term indicates the speed of adjustment of any disequilibrium towards a long-run equilibrium state.

**Phillips and Quliaris cointegration method**

Phillips and Ouliaris (1998) introduced two residual based tests, namely the variance ratio test and the multivariate trace statistic in order to investigate the presence of cointegration of the examined variables. The multivariate trace statistic is regarded as more powerful test than the variance test resulting to the same conclusions, irrespective of which is the dependent variable of the estimated model. The null hypothesis defines the non existence of cointegration against the alternative of existence of cointegration in examined variables such as in Engle-Granger cointegration method. The main disadvantage of the two methods is that they are used to estimate a bivariate regression model in order to find cointegrating relationships. Otherwise, Johansen's procedure is used for multivariate regression models.

## 2.5. Error correction model

The error correction model was first introduced by Sargan (1964) and subsequently popularized by works of Davidson and McKinnon (1978), Hendry et al. (1984), Johansen and Juselius (1990). The existence of a long-run equilibrium relationship among the dependent and independent variables, as reflected in the cointegrated regression, implies that the residuals from the cointegrated regression can be used as the error-correction term $EC_{t-1}$ to explain the system's short-run dynamics Engle and Granger (1987). The final form of the Error-Correction Model (ECM) was selected according to the approach suggested by Hendry, Maddala (1992).

The general form of the vector error correction model (VECM) is the following one:

$$\Delta Y_t \ = \ \beta_0 + \sum_{i}^{n} \beta_1 \Delta Y_{t-i} + \sum_{i}^{n} \beta_2 \Delta X_{t-i} + \lambda EC_{t-i} + \varepsilon_t$$

where

Δ is the first difference operator,

$EC_{t-1}$ is the error correction term lagged one period,

λ is the short-run coefficient of the error correction term $(-1 < \lambda < 0)$,

$\varepsilon_t$ is the white noise term.

For the ECM, the appropriate lag length is selected by using Hendry's modeling strategy to eliminate lags with insignificant parameter estimates based on lowest values for the Schwarz Information Criterion (SC) Initially, the ECM was estimated using the lags of those first differences of variables, whose coefficients were statistically not significant were deleted, so that a parsimonious ECM was obtained relatively.

## 3. Empirical results

Based on Dritsaki et al (2004), Vazakidis and Adamopoulos (2010) studies the model of economic growth is mainly characterized by the effect of exports. The significance of the empirical results is depended on the examined variables. The LLC, IPS and BR, H, panel unit root tests results for both levels and first differences of exports and economic growth are reported in Tables 1a and 1b.

The results of Levin, Lin and Chu (LLC), Im Pesaran and Shin (IPS), Breitung (BR) and Hadri (H) panel unit root tests suggested that all variables can be characterized as stationary and integrated of order one, I(1). So, these variables can be cointegrated as well, since they are stationary.

For this purpose three different cointegrated processes are used in order to investigate the short-run and long-run cointegrated relationships. The major concern, however, is to find the nature of relationship between exports and economic growth, that is found to be positive and significant using all three cointegration techniques.

The results of the three estimated techniques (FMOLS, DOLS and CCR) are presented in Tables 2a, 2b, 2c respectively taking into account the Hansen statistic test, Park chi-square test, Engle-Granger z-statistic test and Phillips-Quliaris statistic test based on Schwartz criterion for selected number of lags, the Bartlett Kernel, and the Newey-West fixed bandwidth of observations.

These estimates indicate that there is a positive relationship between exports and economic growth both in all techniques. The results of the fully modified ordinary least squares method (FMOLS) suggest that a short-run increase of exports per 1% induces an increase of economic growth per 0.49 for USA, obtaining a very high coefficient of determination $R^2$ ($R^2 = 0.98$)

## Table 1a: Panel unit root tests

| Country | Variables | Levels | | | Diferrences | | |
|---|---|---|---|---|---|---|---|
| | | LLC$_N$ | LLC$_C$ | LLC$_T$ | LLC$_N$ | LLC$_C$ | LLC$_T$ |
| USA | X (exports) | 0.0448 | 0.0265 | -0.0747* | -0.6844 | -0.9541 | -1.0558 |
| | Y (gdp) | 0.0070 | 0.0060 | -0.0661* | -0.0470 | -0.4785 | -0.5973 |

Notes: LLC is the Levin, Lin, and Chu t-test for unit root test in the model.
The critical values for LLC$_N$ test are 2.96 and -2.32.without constant or trend in levels and first differences respectively.
The critical values for LLC$_C$ test are 2.49 and -6.54 including only constant in levels and first differences respectively.
The critical values for LLC$_T$ test are -1.48 and -7.40 including constant and trend in levels and first differences respectively,
*, **, *** indicate that those values are not consistent with relative hypotheses at the 1%, 5% and 10% levels of significance relatively.

## Table 1b: Panel unit root tests

| Country | Variables | Levels | | | Differences | | |
|---|---|---|---|---|---|---|---|
| | | IPS$_C$ | BR$_T$ | H$_T$ | IPS$_C$ | BR$_T$ | H$_T$ |
| USA | X (exports) | 1.6385 | 0.0415 | 0.3203 | -4.7883 | 0.0608 | 0.0389 |
| | Y (GDP) | 1.3063 | 0.0089 | 0.3060 | -3.9554 | 0.0107 | 0.1316 |

Notes: IPS is the Im, Pesaran and Shin t-test for unit root in the model, BR is the Breitung t-test for unit root in the model, H is the Hadri Z-test for unit root in the model
The critical values for IPS$_c$ test are 4.74 and -5.82 including only constant and in levels and first differences respectively. The critical values for Breitung test are 1.47 and -3.72 including constant and trend in levels and first differences respectively. The critical values for Hadri test are 8.49 and -0.38 including constant and trend in levels and first differences respectively.

(Table 2a). Hansen instability parameter shows that the null hypothesis can not be rejected, only when the regression is estimated without constant or linear trend. The cointegration test based on Park added variables indicates that the null hypothesis of cointegration can not be rejected, since the probability value of chi-square statistic test is larger than 5 percent level of significance (0.92>0.05).

Examining the Engle-Granger cointegration analysis, the null hypothesis of non-existence cointegration can be rejected, only by z-statistic test due to its lower probability value than 5 percent level of significance (0.004<0.05). Also, we can infer the probability value of residual variance is lower than 5 percent (0.0001<0.05). The same conclusion derives from the results of Phillips-Quliaris cointegration analysis. The null hypothesis of non-existence cointegration can be rejected only by z-statistic test due to its lower probability value than 5 percent level of significance (0.02<0.05).

The results of the dynamic ordinary least squares method (DOLS) suggest that a short-run increase of exports per 1% induces an increase of economic growth per 0.35 for USA, obtaining a very high coefficient of determination $R^2$ ($R^2$=0.99) (Table 2a). Hansen instability parameter shows that the null hypothesis can not be rejected at 5% level of significance. The cointegration test based on Park added variables indicates that the null hypothesis of cointegration can not be rejected, since the probability value of chi-square statistic test is larger than 5 percent level of significance (0.31>0.05).

Examining the Engle-Granger cointegration analysis the null hypothesis of non-existence cointegration can be rejected only by z-statistic test due to its lower probability value than 5 percent level of significance (0.00<0.05). Also, the probability value of residual variance is lower value than 5 percent (0.0001<0.05). The same conclusion derives from the results of Phillips-Quliaris cointegration analysis. The null hypothesis of non-existence cointegration can be rejected only by z-statistic test due to its lower probability value than 10 percent level of significance (0.08<0.10).

The results of the canonical cointegration (CCR) method suggest that a short-run increase of exports per 1% induces an increase of economic growth per 0.44 or USA, obtaining a very high coefficient of determination $R^2$ equal to 0.99. (Table 2c). Hansen instability parameter shows that the null hypothesis is can not be rejected at 5% level of significance. The cointegration test based on Park added variables indicates that the null hypothesis of cointegration can not be rejected, since the probability value of chi-square statistic test is larger than 5 percent level of significance (0.06>0.05).

Examining the Engle-Granger cointegration analysis the null hypothesis

## Table 2a: Fully Modified Ordinary least squares method (FMOLS)

| Dependent Variable: Y | | | | |
|---|---|---|---|---|
| Method: Fully Modified Least Squares (FMOLS) Date: 04/13/18 Time: 13:21 Sample (adjusted): 1971 2017 Included observations: 47 after adjustments Cointegrating equation deterministics: C ©TREND Long-run covariance estimate (Prewhitening with lags = 4. Bartlett kernel. Newey-West fixed bandwidth = 4.0000) | | | | |
| **Variable** | **Coefficient** | **Std. Error** | **t-Statistic** | **Prob.** |
| X | 0.495330 | 0.061387 | 8.069022 | 0.0000 |
| c | 0.042136 | 0.017824 | 2.363974 | 0.0226 |
| ©TREND | 0.011173 | 0.001804 | 6.192101 | 0.0000 |
| R-squared | 0.989194 | Mean dependent var | | 0.556802 |
| Adjusted R-squared | 0.988703 | S.D. dependentvar | | 0.358781 |
| S.E. of regression | 0.038134 | Sum squared resid | | 0.063986 |
| Long-run variance | 0.002260 | | | |

| Cointegration Test - Hansen Parameter Instability | | | | |
|---|---|---|---|---|
| Date: 04/13/18 Time: 12:33 Equation: HANSEN_FMOLS Series: YX Null hypothesis: Series are cointegrated Cointegrating equation deterministics: YX | | | | |
| | **Stochastic** | **Deterministic** | **Excluded** | |
| Lc statistic | Trends (m) | Trends (k) | Trends (p2) | Prob.* |
| 0.135437 | 1 | 0 | 0 | >0.2 |

\* Hansen (1992b) Lc(m2=1, k=0) p-values, where m2=m-p2 is the number of stochastic trends in the asymptotic distribution

Warning: number of trends and p-values do not account for user-specified deterministic regressors

**Cointegration Test - Park Added Variables**

Date: 04/13/18 Time: 13:20
Equation: HANSEN_FMOLS
Series: YX
Null hypothesis: Series are cointegrated
Original trend specification: Linear trend
Added trends: Quadratic trend
Added deterministics to test @TRENDA2

| | Value | df | Probability |
|---|---|---|---|
| Chi-square | 0.008758 | 1 | 0.9254 |

**Cointegration Test - Engle-Granger**

Date: 04/13/18 Time: 11:50
Equation: FMOLS_PARK
Specification: Y X C @TREND
Cointegrating equation deterministics: C @TREND
Null hypothesis: Series are not cointegrated
Automatic lag specification (lag=3 based on Schwarz Info Criterion, maxlag=4)

| | Value | Prob* |
|---|---|---|
| Engle-Granger tau-statistic | -2.769999 | 0.4063 |
| Engle-Granger z-statistic | -31.60370 | 0.0043 |
| **Intermediate Results:** | | |
| Rho-1 | -0.157389 | |
| Rho S.E. | 0.056819 | |
| Residual variance | 0.000115 | |
| Long-run residual variance | 0.002385 | |
| Number of lags | 3 | |
| Number of observations | 44 | |
| Number of stochastic trends** | 2 | |

* MacKinnon (1996) p-values.
** Number of stochastic trends in asymptotic distribution.

**Cointegration Test - Phillips-Ouliaris**

Date: 04/13/18 Time: 13:26
Equation: PQ_FMOLS
Specification: Y X C ©TREND
Cointegrating equation deterministics: C ©TREND
Null hypothesis: Series are not cointegrated
Long-run variance estimate (Prewhitening with lags = 4. Bartlett kernel.
Newey-West fixed bandwidth = 4.0000)
No d.f. adjustment for variances

|                                           | Value      | Prob.* |
|-------------------------------------------|-----------|--------|
| Phillips-Ouliaris tau-statistic           | -3.624122 | 0.1052 |
| Phillips-Ouliaris z-statistic             | -25.46298 | 0.0288 |
| **Intermediate Results:**                 |           |        |
| Rho-1                                     | -0.086435 |        |
| Bias corrected Rho -1 (Rho* -1)           | -0.541765 |        |
| Rho* S.E.                                 | 0.149489  |        |
| Residual variance                         | 0.000142  |        |
| Long-run residual variance                | 0.001070  |        |
| Long-run residual autocovariance          | 0.000464  |        |
| Number of observations                    | 47        |        |
| Number of stochastic trends"              | 2         |        |

\* MacKinnon (1996) p-values.
\*\* Number of stochastic trends in asymptotic distribution.

## Table 2b: Dynamic Ordinary Least Squares method (DOLS)

| Dependent Variable: Y | | | | |
|---|---|---|---|---|
| Method: Dynamic Least Squares (DOLS) <br> Date: 04/13/18 Time: 14:05 <br> Sample (adjusted): 1972 2016 <br> Included observations: 45 after adjustments <br> Cointegrating equation deterministics: C ©TREND <br> Fixed leads and lags specification (lead=1. Iag=1) <br> Long-run variance estimate (Bartlett kernel. Newey- <br> West fixed bandwidth = 4.0000) | | | | |
| **Variable** | **Coefficient** | **Std. Error** | **t-Statistic** | **Prob.** |
| X | 0.351737 | 0.079017 | 4.451415 | 0.0001 |
| C | -0.010477 | 0.022702 | -0.461484 | 0.6470 |
| ©TREND | 0.015854 | 0.002317 | 6.841605 | 0.0000 |
| R-squared | 0.993141 | Mean dependent var | | 0.553931 |
| Adjusted R-squared | 0.992261 | S.D. dependentvar | | 0.347750 |
| S.E. of regression | 0.030592 | Sum squared resid | | 0.036499 |
| Long-run variance | 0.003031 | | | |

| Cointegration Test - Hansen Parameter Instability | | | | |
|---|---|---|---|---|
| Date: 04/13/18 Time: 14:00 <br> Equation: DOLS <br> Series: YX <br> Null hypothesis: Series are cointegrated <br> Cointegrating equation deterministics: C @TREND | | | | |
| **Lc statistic** | **Stochastic Trends (m)** | **Deterministic Trends (k)** | **Excluded Trends (p2)** | **Prob\*** |
| 0.018646 | 1 | 1 | 0 | >0.2 |

\* Hansen (1992b) Lc(m2=1, k=1) p-values, where m2=m-p2 is the number of stochastic trends in the asymptotic distribution

**Cointegration Test - Park Added Variables**

Date: 04/13/18 Time: 14:49 Equation: PARK_DOLS Series: YX
Null hypothesis: Series are cointegrated
Original trend specification: Linear trend
Added trends: Powers of trend up to 3
Added deterministics to test @TRENDA2 (@TREND/29)*3

|            | Value    | df | Probability |
|------------|----------|----|-------------|
| Chi-square | 2.311847 | 2  | 0.3148      |

**Cointegration Test - Engle-Granger**

Date: 04/13/18 Time: 14:08
Equation: DOLS
Specification: Y X C ©TREND
Cointegrating equation deterministics: C ©TREND
Null hypothesis: Series are not cointegrated
Automatic lag specification (lag=4 based on Schwarz Info Criterion.
maxlag=9)

|                             | Value     | Prob.* |
|-----------------------------|-----------|--------|
| Engle-Granger tau-statistic | -3.198492 | 0.2250 |
| Engle-Granger z-statistic   | -149.3598 | 0.0000 |
| **Intermediate Results:**   |           |        |
| Rho-1                       | -0.198461 |        |
| Rho S.E.                    | 0.062048  |        |
| Residual variance           | 0.000111  |        |
| Long-run residual variance  | 0.034052  |        |
| Number of lags              | 4         |        |
| Number of observations      | 43        |        |
| Number of stochastic trends" | 2        |        |
|                             |           |        |

\* MacKinnon (1996) p-values.
\** Number of stochastic trends In asymptotic distribution.

of non-existence cointegration can be rejected only by z-statistic test due to its lower probability value than 5 percent (0.004<0.05). Also, the probability value of residual variance is lower than 5 percent level of significance (0.0001<0.05). The same conclusion derives from the results of Phillips-Quliaris cointegration analysis. The null hypothesis of non-existence cointegration can be rejected only by z-statistic test due to its lower probability value than 5 percent level of significance (0.02<0.05).

Comparing the above estimations, the results of the three different cointegration techniques are summarized in Table 3. However, DOLS has increased explanatory power of economic growth, since the adjusted coefficient of determination ($R^2$) is higher than the relative one of the other estimating (FMOLS and CCR) methods. As it seems, all cointegration methods prove that all variables become stationary in their first differences and cointegrated of order one I(1).

The results of the estimated vector error correction model suggest that a short-run increase of exports per 1% induces an increase of economic growth per 0,4% for USA. The estimated coefficient of $EC_{t-1}$ is statistically significant and has a negative sign, which confirms that there is not any problem in the long-run equilibrium relationship between exports and economic growth at 5% level of significance, but its relatively low negative value (-0.026) for USA shows a satisfactory rate of convergence to the equilibrium state per period. The results of the stimated vector error correction model appears in Table 4.

From the above results, we can infer that the VAR model including the variable of economic growth as the dependent one, has obtained the best statistical estimates. Finally, there is a long-run relationship between exports and economic growth based on exports-led growth effect.

## Table 2c- Canonical Cointegration Regression (CCR) method

| Dependent Variable: Y |
| --- |
| Method: Canonical Cointegrating Regression (CCR)<br>Date: 04/13/18 Time: 15:02<br>Sample (adjusted): 1971 2017<br>Included observations: 47 after adjustments<br>Cointegrating equation deterministlcs: C @TREND<br>Long-run covariance estimate (Prewhltenlng with lags = 3,<br>Bartlett kernel, Newey-West fixed bandwidth = 4.0000) |

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| --- | --- | --- | --- | --- |
| X | 0.441592 | 0.061622 | 7.166177 | 0.0000 |
| C | 0.030740 | 0.017288 | 1.778100 | 0.0823 |
| @TREND | 0.012764 | 0.001767 | 7.222397 | 0.0000 |
| R-squared | 0.990651 | Mean dependent var | | 0.556802 |
| Adjusted R-squared | 0.990226 | S.D. dependent var | | 0.358781 |
| S.E. of regression | 0.035470 | Sum squared resld | | 0.055358 |
| Long-run variance | 0.002297 | | | |

| Cointegration Test - Hansen Parameter Instability |
| --- |
| Date: 04/13/18 Time: 15:03<br>Equation: HANSEN_CCR<br>Series: YX<br>Null hypothesis: Series are cointegrated<br>Cointegrating equation deterministics: C @TREND |

| Lc statistic | Stochastic Trends (m) | Deterministic Trends (k) | Excluded Trends (p2) | Prob.* |
| --- | --- | --- | --- | --- |
| 0.568714 | 1 | 1 | 0 | 0.0666 |

* Hansen (1992b) Lc(m2=1, k=1) p-values, where m2=m-p2 is the number of stochastic trends in the asymptotic distribution

**Cointegration Test - Park Added Variables**

Date: 04/13/18 Time: 15:32
Equation: HANSEN_CCR_1
Series: YX
Null hypothesis: Series are cointegrated
Original trend specification: Linear trend
Added trends: Quadratic trend
Added deterministics to test @TRENDA2

|  | Value | df | Probability |
|---|---|---|---|
| Chi-square | 0.004800 | 1 | 0.9448 |

**Cointegration Test - Engle-Granger**

Date: 04/13/18 Time: 15:03
Equation: HANSEN_CCR
Specification: Y X C @TREND
Cointegrating equation deterministics: C @TREND
Null hypothesis: Series are not cointegrated
Automatic lag specification (lag=3 based on Schwarz Info Criterion, maxlag=3)

|  | Value | Prob* |
|---|---|---|
| Engle-Granger tau-statistic | -2.769999 | 0.4063 |
| Engle-Granger z-statistic | -31.60370 | 0.0043 |
| **Intermediate Results:** |  |  |
| Rho-1 | -0.157389 |  |
| Rho S.E. | 0.056819 |  |
| Residual variance | 0.000115 |  |
| Long-run residual variance | 0.002385 |  |
| Number of lags | 3 |  |
| Number of observations | 44 |  |
| Number of stochastic trends** | 2 |  |

** Number of stochastic trends in asymptotic distribution.

**Cointegration Test - Philllps-Oullaris**

Date: 04/13/18 Time: 15:26
Equation: HANSEN_CCR_1
Specification: YXC@TREND
Cointegrating equation determlnistlcs: C @TREND
Null hypothesis: Series are not cointegrated
Long-run variance estimate (Prewhitening with lags = 4, Bart-
lett kernel, Newey-West fixed bandwidth = 4.0000)
No d.f. adjustment for variances

|  | Value | Prob.* |
|---|---|---|
| Philllps-Oullaris tau-statistic | -3.624122 | 0.1052 |
| Phillips-Ouliaris z-statistic | -25.46298 | 0.0288 |
| **Intermediate Results:** | | |
| Rho-1 | -0.086435 | |
| Bias corrected Rho -1 (Rho* -1) | -0.541765 | |
| Rho* S.E. | 0.149489 | |
| Residual variance | 0.000142 | |
| Long-run residual variance | 0.001070 | |
| Long-run residual auto covariance | 0.000464 | |
| Number of observations | 47 | |
| Number of stochastic trends** | 2 | |

* MacKinnon (1996) p-values.
** Number of stochastic trends in asymptotic distribution.

## Table 3: Comparison of cointegration tests methods

| | Adjusted $R^2$ | HANSEN lc-statistic | PARK chi-square statistic | ENGLE-GRANGER z-statistic | PHILLIPS-QUILLARIS z-statistic |
|---|---|---|---|---|---|
| FMOLS | 0.9887 | 0.13* | 0.008 (0.92) | -31.60 (0.004) | -25.46 (0.02) |
| DOLS | 0.9922 | 0.018 | 2.31 (0.31) | -149.35 (0.00) | -21.18 (0.08)** |
| CCR | 0.9902 | 0.56 | 0.004 (0.94) | -149.35 (0.00) | -25.46 (0.02) |

Notes: probabilities values are referred to parentheses
* without constant or linear trend
** accepted for 10% level of significance

## 5. Conclusions

This study examined the short-run and long-run relationship between exports and economic growth estimating a bivariate regression model for USA for the period 1970-2017. Initially, the results of panel unit root tests suggested that all variables are stationary and integrated of order one, I(1). The results of cointegration tests indicated that there is a short-run between exports and economic growth, while the estimations of the vector error correction model indicated that there is a long-run relationship between exports and economic growth. The empirical results of this paper are agreed with the studies of Dritsaki et al (2004), Vazakidis, (2006), Adamopoulos (2014). However, more interest should be focused on the comparative analysis of panel cointegration analysis for other countries in future research.

**Table 4: Vector Error Correction Model**

| Vector Error Correction Estimates<br>Sample (adjusted): 1973 2017<br>Included observations: 45 after adjustments<br>Standard errors in ( ) & t-statistics in [ ] | | |
| --- | --- | --- |
| **Cointegrating Eq:** | **CointEq1** | |
| DY(-1) | 1.000000 | |
| DX(-1) | 8.537081<br>(1.40663)<br>[6.06916] | |
| C | -0.259555 | |
| **Error Correction:** | **D(DY)** | **D(DX)** |
| CointEq1 | -0.026089<br>(0.00431)<br>[-6.04700] | -0.125229<br>(0.02333)<br>[-5.36659] |
| D(DY(-1)) | 0.339945<br>(0.17517)<br>[1.94063] | 1.955767<br>(0.94744)<br>[2.06426] |
| D(DX(-1)) | 0.064254<br>(0.03474)<br>[1.84955] | -0.141850<br>(0.18790)<br>[-0.75494] |
| C | 0.000103<br>(0.00120)<br>[0.08529] | -2.17E-05<br>(0.00651)<br>[-0.00333] |
| R-squared | 0.483511 | 0.531125 |
| F-statistic | 12.79406 | 15.48112 |

# Notes

1. The LL test statistic is a $t$ − statistic on $\rho$ given by

$$t_\rho = \frac{(\hat{\rho}-1)\sqrt{\sum_{i=1}^{N}\sum_{t=1}^{T}\tilde{y}_{i,t-1}^2}}{s_e} \text{ where } \tilde{y}_{it} = y_{it} - \sum_{s=1}^{T}h(t,s)y_{is}, \; \tilde{u}_{it} = u_{it} - \sum_{s=1}^{T}h(t,s)u_{is}$$

$$h(t,s) = z_t'(\sum_{t=1}^{T}z_t z_t')z_s, \; s_e^2 = (NT)^{-1}\sum_{i=1}^{N}\sum_{t=1}^{T}\tilde{u}_{it}^2 \text{ and } \hat{\rho} \text{ is the OLS estimate of } \rho$$

(Levin, Lin and Chu, 2002, Christopoulos and Tsionas, 2004).

2. The Im Pesaran Shin (IPS) statistic test is estimated by the following form

$$t_{IPS} = \frac{\sqrt{N}(\bar{t} - E[t_i \mid \rho_i = 0])}{\sqrt{\text{var}[t_i \mid \rho_i = 0]}} \to N(0,1) \text{ where } \bar{t} = N^{-1}\sum_{i=1}^{N}t_i, \text{ while the moments of}$$

$E[t_i|\rho_i = 0]$ and $\text{var}[t_i|\rho_i = 0]$ are obtained by Monte Carlo simulation, (Im, Pesaran and Shin 1997).

3. However, the Breitung panel unit root test differs from LLC for two reasons: Firstly, only the autoregressive term is removed when the standardized proxies are constructed:

$$\Delta\tilde{y}_{it} = \left(\Delta y_{it} - \sum_{j=1}^{p_i}\beta_{ij}\Delta y_{it-j}\right)/s_i \text{ and } \tilde{y}_{it-1} = \left(y_{it-1} - \sum_{j=1}^{p_i}\beta_{ij}\Delta y_{it-j}\right)/s_i$$

where $\tilde{\beta}$, $\beta$ and $s_i$ *are as defined for LLC,* and secondly the proxies are transformed and detrended,

$$\Delta y_{it}^* = \sqrt{\frac{(T-t)}{(T-t+1)}}\left(\Delta\tilde{y}_{it} - \frac{\Delta\tilde{y}_{it+1} + \ldots + \Delta y_{iT}}{T-t}\right)$$

and $y_{it}^* = \tilde{y}_{it} - \tilde{y}_{i1} - \dfrac{t-1}{T-1}(\tilde{y}_{iT} - \tilde{y}_{i1})$.

The constancy parameter is obtained from the following pooled equation (Eviews, 2015, Breitung, 1999)

$\Delta y_{it}^* = a \, y_{it-1}^* + v_{it}D$

4. Eviews (2015) User Guide, Irvine, California, USA

5. The LM statistic test has the following form is

$$LM = \frac{1}{N}\left(\sum_{i=1}^{N}\left(\sum_{t}s_i(t)^2/T^2\right)/f_0\right),$$

where $S_i(t)$ are cumulative sums of residuals and $f_0$ is the average of estimators of residual spectrum at frequency zero namely

$S_i(t) = \sum_1^t \varepsilon_{it}$ and $f_0 = \sum_{i=1}^t f_{i0} / N$ respectively. Hadri indicated that z statistic test is calculated by the following form $Z = \dfrac{\sqrt{N(LM - \xi)}}{\zeta} \to N(0,1)$,

where $\xi = \dfrac{1}{6}$ and $\zeta = \dfrac{1}{45}$ when the estimated model includes constant,

(Eviews, 2015, Hadri, 2000, Hlouskova and Wagner, 2006*).*
   6. (Eviews, 2015, Phillips and Hansen 1990),
where $X_t = \Gamma_{2'1} D_{1t} + \Gamma_{2'1} D_{1t} + \hat{\varepsilon}_t$

$$y_t^* = y_t - \hat{\omega}\ \hat{\Omega}_{22}^{-1}\ \hat{\upsilon}_2, \lambda_{12}^* = \lambda_{12} - \hat{\omega}\ \hat{\Omega}_{22}^{-1}\ \hat{\Lambda}_{22},$$

and finally $Z_t = (X_t^{'}, D_t^{'}), \hat{\omega}_{12} = \hat{\omega}_{11} - \hat{\hat{\omega}}_{12}\ \hat{\Omega}_{22}^{-1}\ \hat{\omega}_{21}$

   7. Saikkonen (1991), Kao and Chiang (2000)
   8. The canonical cointegration equation has the following form:

$$y_t^* = \beta^{'} y_{2t}^* - \hat{\omega}\ u_{1t}^* \text{ where } Z_t = (Z_t^{*'}, D_t^{'}), y_t^* = u_{1t} - \Omega_{12}\ \hat{\Omega}_{22}^{-1}\ \upsilon_{2\tau}$$

(Eviews 2015, Phillips and Hansen 1990, Saikkonen 1991, Kao and Chiang,2000)
   9. Phillips and Hansen (1990), Eviews (2015)
   10. Granger (1986), Engle and Granger, (1987).

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# THE IMPLEMENTATION OF INNOVATIVE LOCAL DEVELOPMENT INITIATIVES THROUGH PARTICIPATION IN COMPETITIVE EUROPEAN UNION PROGRAMMES: THE CASE OF THE MUNICIPALITY OF KORYDALLOS IN THE URBACT II PROGRAMME

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## Abstract

European cities are a key factor in the development process, especially at the local level. In order to respond to this role in the most effective way, one of the main outlets is their participation in the European Union's competitive programmes. Especially in the case of Greek cities the benefits are multiple and they are not only related to finding financial resources. The purpose of this article is to explore these benefits through the case study of the participation of the city of Korydallos in the Urbact II programme.

*JEL Classification: O18, O35*

*Keywords: local development, social innovation, development strategies, stakeholders, participation*

## 1. Introduction

One of the main responsibilities of local government is the developmental one, and this has stated clearly in Greek legislation, especially in the previous decades (Municipal Code, 2006, Kallikratis Law, 2010). This is an outcome from what local communities need but also in accordance with the principles

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of subsidiarity and proximity, as the first level of Local Authorities (LAs) is the level of administration closest to citizens with better knowledge of local needs.

Unfortunately, few cases of Greek Local Authorities, escaped from a conventional approach regarding local development policies and taking a more integrated or participatory approach envisaged as so by the Europe 2020 Strategy. This problem is linked to a series of inherent weaknesses of local government, such as their size (at least before Kallikratis reform, and for some even after Kallikratis too), the lack of expert personnel, a political vision stressed by party politics and coalitions, the introversion, the outdated organizational model, the limited financial resources (especially during the last five years), the difficulty in accepting change and innovation and, finally, the lack of strategy and programming (Grigoriadou, Marava, 2006, Kyvelou, et al, 2011; Getimis & Hlepas, 2013).

The Urbact, a Territorial Cooperation Programme, could be considered, with regards to local government, as the cutting edge regarding planning of innovative development policies for European cities, focusing on the exchange of know-how, the promotion and advancement of participatory processes, and the development of strategies which create the conditions for a substantial strengthening of the development process at the local level.

The aim of this article is to present a case study from the participation in the Urbact II programme of a small city, Korydallos, which was not used to working directly with the EU. Through this gained experience a more innovative, integrated, sustainable and participatory urban development was envisaged by the Municipality of Korydallos. By exploring its participation, some key difficulties, challenges and critical issues attached with small sized cities in the highly competitive European environment could be revealed.

## 2. Promoting urban development policies in the European Union

The interest in urban areas, and in particular the shaping of common directions for a "European urban agenda", despite being strong and evident from the creation of the European Union (EU), has over time been a complex one, reflecting at times the very course of EU integration itself, and at other times, different expressions of the urban problems manifestations in regions with different spatial characteristics (Fedeli, 2014).

In particular, from the Treaty of Rome or even earlier, local leaders at senior level have been the strongest supporters of European integration and they had envisaged a more expanded role for EU regions and cities (Fedeli, 2014). Gradually, cities' role has increased in Europe, as the urbanization process

was continued alongside with a strengthening role of European metropolitan areas in the global economic system, even during the crisis of 2008. Cities of Europe are still motors of growth, magnet for talented and young labour force, innovation and productivity. Europe needs them for recovering from the crisis. Not surprisingly then, that increasing the attractiveness and competitiveness of cities, continues to be an important component of European Policies.

Initially, this recognition of cities' role in shaping the European Identity and Development was promoted, with the creation of an institutional representative body, that of the European Committee of the Regions (CoR). Since its establishment more than 20 years ago, the CoR has been working to bring citizens closer to the European Union. It is claimed that CoR members as locally and regionally elected representatives, are in a better position to represent them at the EU level as they are closer to them and their problems (www.cor.europa.eu).

Through CoR gradually, the intergovernmental cooperation on urban development was formed. This cooperation contributed to a new emphasis on Integrated Urban Development across Europe by promoting a more coordinated approach to national urban policies. At EU level different reports at different times claimed about the importance of key common methodology of addressing urban "issues" or introducing the importance of "place-based" development strategy (Barca, 2009) for the implementation of cohesion policy.

But most important, a set of common principles for the urban development of the European area has been formulated through key European documents e.g. the Leipzig Charter on Sustainable European Cities (E.C., 2007); the Toledo Declaration on integrated urban revitalization (informal Ministerial Meeting, 2010) and the promotion of the Urban Agenda by the Greek, Lithuanian and Italian Presidencies (COM, 2014a: 490). At the same time, the European Parliament, the European Economic and Social Committee, the Committee of the Regions and the European cities networks agreed on a common urban agenda. In the Forum of Cities, which was organized by the European Commission in February 2014, two main objectives were agreed: (a) to strengthen the harmonization of EU sectoral policies; and (b) to involve local authorities in the decision-making process, given their potential contribution to the sustainable and integrated development of the European area (COM, 2014b).

It is clear that the institutional bodies, either at Member State, EU or local level, agreed that, in accordance with the principle of subsidiarity, EU should not be directly involved in the civil policies implemented by Member States (Papadopoulou & Hassanagas, 2011). However, the need for common thematic guidelines on urban development in the European area, given the common challenges of urban space through intergovernmental cooperation, is recognized.

It is acknowledged that EU sectoral policies, especially cohesion policy and environmental policy, have a direct impact on the urban policies of member states (Kouridou, 2013). In the first of these, through a series of actions since the late 1980s, urban development takes different thematic priorities. Urban Pilot Programmes (1989-1999) were the first interventions to address specific urban problems.

Then, the two URBAN community initiatives (URBAN I, II) unveiled new dimensions of urban development in EU in terms of economic, environmental and social regeneration, in selected urban areas of the EU (Andrikopoulou et al., 2007). Finally, the urban dimension is integrated into the national and regional Operational Programmes (OPs) of the previous programming period where potentially all EU urban areas could be final beneficiaries. However, up to the previous period, there was no institutional obligation to develop distinct Operational Programmes, virtually leading to a different view of the urban agenda objectives by the Member States (European Parliament, 2014). With the renaming of the Directorate-General for Regional Policy to "Regional Policy and Urban Development", it was also recognized that cities have to fully assume their role for the economic, social and territorial development of the EU. They are regarded to be key actors in strengthening the competitiveness of the European economy, achieving "smart growth" and exiting the economic crisis (see ESPON 2013 studies, such as the Future Orientation of Cities Final Report 2010).

Eventually, through the signature of the Pact of Amsterdam (2016) by European ministers, a European Urban Agenda was defined. It's a new multi-level working method promoting cooperation between Member States, cities, the European Commission and other stakeholders in order to stimulate sustainable and inclusive urban growth in Europe by identifying and successfully tackling global or local challenges expessed at local level (E.C., 2017).

Certainly, there is still a diversification of the institutional objectives of urban development in the Member States, which is partly acceptable because of the different characteristics of Local Government in Europe. Multi-level governance is not always working well and the integration of policies across sectors beyond administrative boundaries is difficult to achieve (COM, 2014 b). The Urbact programme was a first step in implementing the multilevel and multi-disciplinary approach of urban development in Europe, enabling all European cities to be potential beneficiaries. At the same time, it was pointed out that, despite the fact that territorial strategies and policies have territorial boundaries, in times of crisis it is necessary to look within and beyond the boundaries and appreciate the importance and strengths of other urban areas and their

connection with other nodes and networks of innovation. It is also important to take into consideration how a multilevel integrated and participatory approach could contribute to territorial cohesion in EU (Schlappa and Neill, 2013).

A key characteristic of Urbact's historical development is the participative approach– the development of strong partnerships between different actors even citizens nowadays, that is essential for efficient urban development policies.

## 3. The Urbact II programme: a brief presentation

Urbact is a territorial cooperation programme the philosophy of which is largely inspired by the Urban Community Initiative (URBACT II Programme Manual, 2007).

The programme was implemented for the first time during the 2000-2006 programming period, starting in particular in 2003, and continues to be implemented to date in the form of Urbact III, in the framework of the current programming period. Throughout these years, the Urbact aims to build collaboration in Urban Areas of Europe and tackle innovatively through exchange knowledge and experience some key urban common issues. For example, currently, the objectives of the programme are "st*rengthening the cooperation of cities, developing integrated solutions to address common urban challenges, networking, learning through the experiences of others, recognizing good practices aiming to improve urban policies.*" (http://urbact.eu/urbact-glance, 2017). In the previous, implementation period (2007-2013), the Urbact II, had as a principal objective "*improving the effectiveness of integrated sustainable urban development in Europe, towards the Strategies of Lisbon and Gothenburg.*" (URBACT II Programme Manual, 2007). The last one, is the one that it is described next with more details as it was the one under the project Gastronomic Cities was funded.

Particularly, this program was built on three priority axes, two of which are thematic priorities and the third one was the technical assistance (see Table 1). These axes included 7 thematic fields, each of which covered a number of relevant priority items, 16 in total.

The Priority Axes (1 and 2) were governed by three basic functions:
 I. Exchange and learning, focusing primarily on those involved in the development and implementation of city-level policies such as politicians, experts, specialist executives etc.
 II. The capitalization of the knowledge gained from the exchange process among the project partners but also of the knowledge developed in other relevant programmes and networks.

**Table 1: Axes, thematic objectives and budget allocation in Urbact II**

| Priority Axes | Thematic Objectives | Budget Percentage |
|---|---|---|
| Axis 1: *Cities*, *Engines of Growth and Jobs* | • Promoting Entrepreneurship<br>• Improving Innovation and Knowledge Economy<br>• Employment and Human Capital | 44% |
| Axis 2: Attractive and Cohesive Cities | • Integrated development of deprived areas and areas at risk of deprivation<br>• Social integration<br>• Environmental Issues<br>• Governance and Urban Planning | 50% |
| Axis 3: Technical Assistance | Support for management processes such as preparation, administration, monitoring, evaluation, information and control activities/audit actions | 6% |

Source: URBACT II Programme Manual, 2007

III. Communication and dissemination, aiming at reaching out to a large as possible audience, relevant to policy making at local level.

Urbact II and Urbact III eligible countries are:

• All Member States of the EU
• Norway and Switzerland,
• States in the pre-accession process
• Partners from any country in the world interested in participating.

A basic requirement for participation for all categories of partners coming from any of the above countries other than EU Member States is that funding should be fully covered by its own resources (state subsidy and partners' own contribution), as opposed to that of Member States partners whose participation is covered by the European Regional Development Fund (ERDF) at a rate ranging from 70% up to 80%.

A key element in the funding of the programme (http://urbact.eu/our-funding) with the contribution of the ERDF, which in the framework of Urbact II cumulatively amounted to 78.6%, while the states and local partners'

contribution was only 7.6% and 13.8%, respectively. The total budget of the programme for the period 2007-2013 was € 67.8 million, while for the current 2014-2020 programming period under Urbact III, the budget has significantly increased to € 96.3 million with the ERDF contributing 77.1%, countries contributing 7% and local partners 17.2%. An important parameter that should be mentioned with regard to funding, is the differentiation of the funding rate by ERDF between cities coming from convergence and non-convergence regions. For the first case, funding was up to 80%, while for the second case up to 70% (Operational Programme 2007-2013 Urbact II, 2nd call for proposals for the creation of thematic networks and working groups, 2009).

Beneficiaries of the programme are:

I. Cities (metropolitan areas, cities of all sizes, districts) of EU Member States and its two partner countries.

II. The regions and Member States of the EU and its two partner countries on issues related to urban policies.

III. The universities and research centers of the EU Member States and its two partner countries on issues related to urban policies.

The main tools for implementing the programme were essentially two:

The first one was Thematic Networks and Fast Track Thematic Networks: This was about the creation of partnerships' networks with their main purpose being the promotion and exchange of experience and knowledge among European cities. The involvement of national or regional authorities was sought after in these networks where possible. Obviously, with regards to fast-track networks, these are in fact selected thematic networks through which the capitalization of the results of interregional cooperation is being promoted, aiming at creating synergies between cohesion policy and other EU policies.

The second one was Working Groups through which a project should be proposed in the fields defined by the thematic objects of the two axes. These specific groups had limited working time compared to that of the thematic networks, while at the same time it was chosen for them to focus less on the element of exchange and more on the production of a qualitative result that could not only be used by third parties but also in the capitalization process of the programme. As envisaged for this type of network, it was possible to form a wider network of partners, which could consist of public bodies, experts, universities, research centers and other relevant organizations.

In forming these networks, particular importance has been attributed to the involvement of stakeholders through the creation of local support groups (Urbact Local Support Group). In addition, of particular importance for the implementation of the projects was the presence of an expert (Lead Expert)

aiming at the technocratic support for each of them. The main goal was to create a local Action Plan with the involvement of all partner cities.

Furthermore, two pilot networks were also planned in 2013: one to support the cities implementing their local action plan (Pilot Deliverable Networks) while the other focused on the exchange of good practices (Pilot Transfer Networks). The rationale underlying their pilot application was promoted in view of the then-upcoming URBACT III, in which three types of networks were actually envisaged: the Action Planning Networks, the Implementation Networks and the Transfer Networks; the latter two being related to the above-mentioned pilot networks.

## 4. A synopsis of the implementation of Urbact II

Urbact can be considered as genuinely innovative with regards to the involvement of European cities both in the process of its implementation and the thematic subjects it promotes. This element is gradually being recognized by the cities as well as other bodies responsible for urban policies.

During the implementation of Urbact II in 2007-2013, the Urbact Secretariat launched three calls. A total of 52 networks (Urbact III Launch Event, 2015) were formed, involving 500 institutions/bodies from 26 Member States as well as Norway and Switzerland. The vast majority of these bodies were European cities either large, medium or small size.

A total number of 350 local action plans was drafted, which were the final outcome of the cities participation in the various networks, involving 5,000 local stakeholders. At the same time, various capacity building actions were organized, two summer universities, national training seminars, and pilot training actions for elected officials. Also, in order to capitalize and disseminate knowledge, the results of the programme projects were published in printed and electronic format.

Particularly important, however, is the fact that, based on research carried out in 69 out of 184 partners, 90% of the Local Action Plans which have been drawn up, have either been implemented or are in the process of being implemented according to the Urbact Secretariat (Urbact Workshop in Greece, 2014). The latter is of particular interest and highlights the importance of the engagement of the cities involved in relation to:

- Ensuring the sustainability of projects and finding financial resources in a highly complex and at the same time competitive environment, as it now stands in the European area
- Strengthening and accelerating the maturation process for implementing

**Map 1: The European cities participating in Urbact II**
       **(Lead Partners and Partners)**



Source: Urbact III Launch Event, 2015

actions, since through their participation in various Urbact projects, cities are given the opportunity to develop integrated urban policies based on local action plans which incorporate all the elements resulting from the exchange of knowledge and experience, the emergence of good practices among partners and the development of participatory processes with stakeholders' involvement
• Adopting innovative urban policies which could only be developed in a context of exchanging experience and identifying good practice
Apparently, urban planning in Europe has taken a more participatory action through cities' engagement to one Urbact Network, and this had positive

impact on cities integrated development. As Urbact is a competitive program, in the next paragraph the experience of Greek Cities in Urbact is looked up.

## 5. The Experience of Urbact in Greece

In Greece and more specifically in the field of local authorities, urban policies that embody innovation is a matter of great concern. But they are usually a feeble minority. Also, there are many cases where any actions attempted are fragmental and not integrated into a wider strategic development framework; as a result, they usually have no continuity and no significant impact.

According to the Urbact Secretariat data and up to the completion of Urbact II, a total of 19 Greek cities and 2 regions participated in various projects under the programme in different thematic areas, while in the current programming period 10 cities have already been involved in Urbact III city networks. With regard to the first category of cities, that of Urbact II, as depicted in the map below, they are mostly urban centers of a relatively large size, either of the two metropolitan areas of the country (Athens and Thessaloniki) or of the wider region. Similar is the situation and in terms of the Greek cities participation in Urbact III. This element first highlights the difficulty for smaller municipalities to participate in the process of joining partnerships, which, although not very complex, it nevertheless demand certain requirements to be met. These include the presence of a minimum number of human resources with the relevant know-how, or the existence of a strategic framework that facilitates the choice of the object with which the entity plans to engage. Moreover, it is worth noting that as it can be seen from the previous map (Map 1), a notable event is that no Greek city has been selected as a lead partner. An exception was the case of the Development Association of Western Attica in the first period of implementation of Urbact I, which, however, was not a city. In the current programming period of Urbact III and in the call for transport networks, two Greek cities Piraeus and Heraklion in Crete have been so far selected as good practices. And if they are selected in the final evaluation, they will be leaders of the respective networks.

Regarding the inability of Greek cities to submit proposals and to be selected as lead partners in a partnership, some working hypothesis are made. The reasons to which this may be attributed could be the following:
• The lack of relevant know-how, which has a deterrent effect on the submission of proposals
• The lack of innovative content in potential proposals that were submitted but eventually rejected

## Map 2: The Greek cities participating in Urbact II



| | |
|---|---|
| Agrinio | Urban N.O.S.E. |
| Athens | Sustainable Food in Urban Communities / JESSICA 4 Cities |
| Chaidari | NeT-TOPIC |
| Chalandri | RegGov |
| Kavala | LUMASEC / TOGETHER |
| Komotini | MILE / SURE |
| Koropi | Urban N.O.S.E. |
| Koridallos | Gastronomic Cities |
| Larissa | Wood Footprint |
| Maroussi | Building Healthy Communities |
| Néa Alikarnassós | MILE |
| Nea Ionia Magnisias | URBAMECO |
| Patras | RUnUP / My Generation |
| Pireas | REDIS |
| Region of Attica | URBACT Markets |
| Region of East Macedonia | RE-Block |
| Rhodes | CTUR |
| Serres | Active Travel Network |
| Thessaloniki | My Generation at Work / Active A.G.E / REPAIR |
| Trikala | CityRegion.Net |
| Veroia | LINKS |

Source: Urbact Workshop in Greece, moving towards Urbact III, 2014

• The lack of ability to form a strong partnership

The key themes to which the Greek cities participated (the Urbact Workshop in Greece, moving towards Urbact III, 2014) focused on networks about Urban Regenerations (degraded neighborhoods, historic centers and markets, social housing, etc.) and Social Inclusion: (elderly, youth, social integration of immigrants, social innovation and entrepreneurship). As far as the first key theme is concerned, it could be considered that the prevailing, perhaps conventional, concept of local government on the implementation of urban policies, which revolves around actions of regeneration, may be depicted, while the second key theme includes the current needs Greek cities have to deal with in the context of the economic crisis affecting the country.

Despite their relatively weak presence, in the context of the previous programming period, Greek cities have shown considerable interest to join the new programme. This was evident from the high attendance by local authorities' representatives at the Urbact III programme presentation event held on 13 and 14 November 2014. At the same time, to the same conclusion i.e. that of increased interest in participation, at least at the level of intent to submit

a proposal, led the fact that, as reflected in the Urbact Marketplace (2015) website, 20 (out of a total of 150) proposals with Greek cities as coordinators were looking for partners.

## 6. The case of the experience of the municipality of Korydallos

### 6.1 The profile of the city

Korydallos city is a suburb of the Athens metropolitan area, a lagging behind urban sub-region, exhibiting recently certain population declining trends. The "image" as well as the past and current development trajectory of the region has been "sealed" by the semiotics of the largest state prison complex, which additionally has raised negative aesthetic, psychological and security concerns. According to the 2011 census data, Korydallos population amounted 63,445 inhabitants (permanent population). In comparison with 2001, when the population was 70,710, there has been a decrease by 10,27%.

Particularly important to understanding the involvement of the municipality of Korydallos with Urbact's gastronomic cities project (which is presented extensively next), is related with the structure of its economic activity and employment during the last decades. According to the Business Register of Hellenic Statistical Authority (ELSTAT) in 2010, a total number of 3,821 businesses operated within the city limits. A significant percentage 83% of them were individual businesses, highlighting the importance of very small businesses in the structure of the local economy. Another key characteristic of the local economy, is its tertiarisation of economic production which was particularly evident from 2000 up to 2010 with emphasis on the sectoral specialization in retail trade. Trade despite the consequences of the economic and financial crisis of the Greek Economy from 2009, it remained the dominant industry in the city (at least with respect to the number of operating business) during the mentioned period, but it presented a negative change between decades. In the same period, and in spite of the enactment of crisis the number of operating restaurants in the area presented a continuous increase, accounting in 2010, 214 businesses or 5.6% of the total number of 3,821 businesses (see more in Table 2).

Since recent ELSTAT data was not available, data from other relevant sources was sought after. This search revealed that for the first quarter of 2015, according to the Piraeus Chamber of Commerce and the Piraeus Chamber of Commerce and Industry, 366 companies were registered and operating in

**Table 2: The ten most important economic sectors in terms of number of businesses**

| Sectors | Number of Businesses |
|---|---|
| Retail trade, except trade of motor vehicles and motorcycles | 928 |
| Inland transport and pipeline transport | 484 |
| Specialized construction activities | 280 |
| Wholesale trade, except of motor vehicles and motorcycles | 268 |
| Architectural and engineering activities, technical testing and analysis | 215 |
| Restaurant and Catering services | 214 |
| Legal and accounting activities | 188 |
| Other personal service activities | 128 |
| Buildings construction | 107 |
| Head office activities, management consulting activities | 99 |

Source: Hellenic Statistical Authority, Business Register 2010

Korydallos restaurant and catering industry in general. This highlights a significant boost to the sector, especially during a period of intense crisis and business activity reduction. Assuming that the other main sectors have suffered serious drawbacks due to the economic crisis that the country is going through, it can be argued that the catering services is the second most important sector of economy in terms of the number of businesses after the retail trade sector.

Another particularly important figure is the number of employees in the restaurant and catering industry which, according to the 2011 census data (ELSTAT, Census 2011), amounted to 1,562 people. Even if we take into account that these figures refer to the beginning of financial Greek crisis and for this, its impact have not been evident at that time, the restaurant and catering industry is still the fifth most important local sector in terms of the number of people employed. Moreover, if we estimate the employment in the sector, in relation to the data obtained for the number of catering businesses

operating, then someone could assume that is statistically probable the number of employees to the sector exceeding the 2,000 people.

## 1.2 The project at a glance

The municipality of Korydallos submitted a request of interests (late October 2013) to participate as a partner to the proposal the city of Burgos submitted as a lead partner to the Urbact Secretariat. The project proposal was titled "Gastronomic Cities": The project aimed to promote the importance of gastronomy as a tool to boost tourism and employment in urban areas. Following the submission of some key elements related to the characteristics of the city of Korydallos, the lead partner approved the city's participation in the partnership. At the end of November, the proposal was selected by the Urbact Secretariat, with the official start date of the project being 30/11/2014.

The project came under the category "pilot transport network projects" of the Urbact programme. Its duration was 16 months (end date March 2015). Five European cities were involved in the network besides the city of Korydallos: Fermo (Italy), Hospitalet de Llobregat (Spain), Alba Iulia (Romania), and the Coordinator, the city of Burgos (Spain).

Of particular importance was the contribution throughout the duration of the project of a Lead Expert, who was foreseen by the project implementation methodology and was selected by the lead partner (Burgos) to support the project and the participating cities, and more generally to contribute to the achievement of the objectives set.

The cities that participated in the project acknowledged the practice developed by the city of Burgos as a good practice in developing gastronomy as a strategic tool for boosting tourism and local employment. Key elements of this strategy were: the quality of local products, innovation, research, creativity, civic participation, cooperation with the private sector and the strategy of shaping the image of the city.

The main objective was the transfer of good practice related to gastronomy, developed by the city of Burgos, as a tool for boosting tourism and employment to the cities that participated in the network through the implementation of an integrated project.

Each city was invited to exchange its experiences with the rest and to share its knowledge with others. This has been attempted through three different approaches: understanding good practice, recognizing the key factors for the transfer of know-how, and exploring new forms of international cooperation.

The process as a whole has been implemented in two levels:

> I.   at local level, involving stakeholders in the development and implementation of a local action plan through participatory processes.
> II.  at transnational level, through a mutual exchange process, in which policy makers and representatives of the stakeholders of each city participated in transnational meetings, staff exchanges, evaluation processes through which it was sought that they would be trained, informed in depth, and ultimately become competent to use the knowledge they have gained to the benefit of their region.

During the implementation of the project, which was shorter than that of other categories of Urbact projects, the network of cities that was set up had been intensively working on the transfer of know-how, the exchange of experience and the identification of good practices not only those of the lead partner, but also those of the other four cities.

The core of the effort on the part of the city of Korydallos was the project team which comprised four members: the coordinator/scientific officer, the finance manager, the communications manager and the administrative manager. Virtually all actions were implemented entirely by the project team (the exception being the evaluation process and the organisation of cooking events).

The total project budget (for all five cities) amounted to €399,969.50. The total budget for the municipality of Korydallos was €56,368.82 of which €45,095.06 was ERDF funding and the other €11,273.76 own contribution (the ERDF funding rate was 80%). Concerning the municipality's own contribution, the national institutional framework provided for the full coverage of the specific amount by the Public Investments Programme resulting in no burden on the municipality's budget. It should be noted that, overall, 90% of the available amount was absorbed by the end of the project.

In order to carry out the proposed project plan, the first step was to capture the current situation through the preparation of a baseline report. Then, a series of mapping tools regarding critical factors of each city (challenges, resources and mechanisms, results and impact) were used to form the basis for the preparation of the feasibility study which was carried out by the lead expert for each city separately. The next phase included the gradual formulation of the Local Action Plan, which is a key deliverable for every Urbact project. For this strategic text, a more detailed analysis will follow next.

Shortly before the completion of the project, the Municipality organized a pilot project implementation activities plan, the content of which was formed in connection with the transfer of know-how that had taken place during the project implementation period; these actions were implemented from 11 to 14 March 2014. The project was completed with the preparation of the final report by the lead expert, which included the presentation of good practices, assessment of the transfer of know-how, evaluation of the project's actions by

the cities representatives themselves, the degree of achievement of the goals set and the extent to which the good practice of Burgos itself was enriched by the experiences of the other partners.

It should be mentioned that since the beginning of the project, the technical meetings had already started, through the exchange of executives. The project managers and some stakeholders from each city participated in the first meeting (Deep Dive), while until June there were another two such meetings, one with chefs' representatives of each city and the other with producers' representatives. From March to November 2014, four meetings were held, one in each city (not including the lead city) that had the character of transnational events (including key note speeches and presentations of relevant experiences by each city, on-site visits to good practices, and organizations of related to gastronomy events).

An important role, throughout the project, had been played by the Urbact Local Support Group on both the implementation of the project and the formulation of the local strategy and preparation of the local action plan. The formation of this group was an exclusively participatory process which was anticipated and supported by the implementation methodology of the programme.

The municipality attempted to network with other Greek cities that participated in other projects of the Urbact programme; this was to a certain extent successful as a cooperation with the City of Athens and the Attica region was developed. A joint action in the center of Athens was co-organized with the first.

At the same time, following an invitation by the municipality, a representative of the managing authority of OP Attica participated in several of the actions implemented, thus recognizing the importance of the project for the development of the city and agreeing to considering in the future, any financing possibilities of the local action plan by OP Attica.

For the implementation of the project, a communication plan was drawn up, which was adopted by all cities, and where special attention was paid to the use of social networks, but without neglecting the importance of more conventional methods of communication and dissemination, such as the production of videos, press conferences, press releases, printed materials and posters, etc.

In order to understand the main actions carried out, in the context of the implementation of the project, a selective analysis of the most important of them is presented next.

## 1.3 Key Actions of the Project

### 6.3.1 Local Action Plan

The Local Action Plan is the main deliverable of the municipality's involvement in the project, which incorporates the know-how transfer. This plan is intended to be the basic tool for the development of the catering and gastronomy sector, with the ultimate goal being the strengthening of local development in the city. It resulted from a complex process where the municipality's project team drew up a draft, discussed with the lead expert and brought it in consultation with the Local Support Group (which will be discussed below). This plan, which runs until the end of 2019, includes an analysis of the national and regional context, with regards to the subject of the study, the mapping of the current situation at the local level, the strategic objectives as well as the operational planning through the implementation of the actions. More specifically, the eight strategic objectives that have been set out are presented in figure 1.

The actions envisaged per strategic objective are illustrated in Table 3.

### 6.3.2 Urbact Local Support Group

Overall, particularly important action for the implementation of the project was the establishment and operation of the Urbact Local Support Group at Korydallos City, which it was an obligation defined by the guidelines set by the programme for all Urbact projects.

A total of 45 people participated in the four meetings of this body, with an average attendance of 23 people per meeting (one of the meetings was additionally attended by 12 representatives from the partner cities). Representatives of the local authority, city officers, business representatives of the restaurant and catering industry, chefs, representatives of academia, experts from the field of advertising and promotion, as well as other agencies involved in tourism, participated. The group's contribution to the implementation of the project and the drafting of the local action plan was really a decisive factor.

### 6.3.3 Pilot Implementation Activities

The organization of pilot actions was also a particularly important phase of the project, where the accumulated knowledge and experience gained throughout the implementation period of the project was built upon. Taking into account good practices in other cities as well as new actions adapted to the characteristics of the city, a three-day event on gastronomy was organized in the city of Korydallos from 11 to 14 March 2014. The event took place in

**Figure 1: Strategic Objectives of Local Action Plan**



Source: Korydallos Local Action Plan, 2015

the historic cinema of the city "Cine Paradise" and included cooking shows by famous chefs of the city, a cooking contest between two groups of chefs, culinary seminars by representatives of local ethnic associations, seminars on healthy eating and other activities. Also, in collaboration with the historic cinema manager, one of the actions was cooking gourmet dishes that were offered during a movie. The actions were open and free to the public (except for the latter where there was a minimal charge). It should also be noted that over the

**Table 3: Strategic Objectives and Actions of the Local Action Plan of the Municipality of Korydallos**

| Objective | Action |
|---|---|
| 1. The involvement of all stakeholders in decision making process | 1.1 Creation of a Representative' association for the gastronomy sector (restaurants, cafe |
| | 1.2 The official Establishment and operation of a local action group for gastronomy with a permanent character. |
| 2. The development of a structured strategy for the integration of gastronomy as a central element of city's image and strategy plan | 2.1 The preparation of a five-year thematic strategic plan for the development of gastronomy as a tool for local development. |
| | 2.2 Incorporation of the above thematic strategic plan in the five-year municipality's operational plan. |
| 3. Organization of events for the promotion of gastronomy as a key element of city's image and its local sustainable development | 3.1 Organizing and Implementing pilot actions for gastronomy at the municipal level |
| 4. Providing support to restaurant sector in order to strengthen local economy and employment | 4.1 Supporting training in the thematic of restaurant management, and other courses through the Municipal Training Centre |
| | 4.2 Technical Support by the Municipality for establishing new businesses in Gastronomy Sector |
| 5. Strengthening social cohesion | 5.1 Enhancing the social role of the Action "Sundays without Intermediaries" at the municipal level |
| | 5.2 Providing information and technical Support for establishing social cooperative enterprises in the food sector |
| | 5.3 Enhancing the collaboration with organizations and NGOs active in the field of gastronomy |

| Objective | Action |
|---|---|
| 6. Supporting quality | 6.1 Preparing a Study for Local Quality Pacts in Gastronomy Sector |
| | 6.2 Establishing a network between producers and local entrepreneurs of gastronomy sector |
| 7. Dissemination and Promotion | 7.1 Using New Technologies for promoting local Restaurants |
| | 7.2 Organization of sight Gastronomic Events |
| 8. Networking - Developing Partnerships | 8.1 Networking and Cooperating with other Greek cities participating in similar projects under the Urbact II |
| | 8.2 Developing partnerships with specialized travel agencies |
| | 8.3 Developing "Gastronomic cities" network on European level |

Source: Korydallos Local Action Plan, 2015

course of the three-day event, fifteen restaurant and catering businesses in the city, provided Korydallos' citizens and visitors low-priced menus.

### 6.3.4 Transnational meeting

The organization of the transnational meeting in the city of Korydallos, during which delegations from the other four cities visited and explored Korydallos city was also a special event for the city. Adjunct to the two day's meeting (i.e. 29 and 30 September 2014) a series of actions were scheduled. These included:

- 9 key note speeches on: gastronomy as a tool for local development, the social economy and gastronomy as an alternative proposal growth potential and finally gastronomy and culture.
- On-the-spot visits to businesses that were considered to be good practice exemplars.
- Organizing an open to the public cooking show event with 9 well-known chefs in total, five from the city of Korydallos and four from the other cities.

### 6.3.5 Evaluation Process

Particular reference should be made to the cooperation developed with the University of the Aegean both through the participation of its representatives in the local support group and the evaluation of the specific project's impacts on the city's, which was carried out by the Quantitative Methodology Laboratory, Department of Business Administration, the University of the Aegean.

### 6.3.6 Communication Plan

Great importance was overall attributed by the network of cities involved in the project to the communication strategy that was implemented as originally planned, with social networks performing the spearhead (mainly through Facebook) where, apart from the project's central account, each city had its own account, with the relevant material being posted in the local language. In the case of Korydallos, the actions were also published on the local authority main web, while many of the press releases issued on the project were reproduced by local and national media. If to all the above releases we add the press releases made by the participating cities, the number increases exponentially. At the same time, audiovisual material (video) was produced, and due to a famous chef participating in the municipality group, one of the transnational meetings was screened and discussed in a cooking show on national television. Also, some local publicity actions were organized with the implementation of some events (a total of three) in the city premises. Finally, conventional tools such as printed brochures and posters were also used to ensure the maximum possible result.

## 7. Conclusions

Overall, the participation of Korydallos city, namely a small-sized city, in a programme such as Urbact, despite the very important benefits attached to it – remains a challenge troubled with a lot of difficulties.

The most important of them according the experience of participation in the specific project are:

- The tightness and downturn in relation to the municipality's economic resources cause difficulties in implementing the actions, even for a relatively small budget project, despite the fact that the organization is merely required to make advance payments which are reimbursed after a short period (usually 6-8 months).
- The significant bureaucratic burden generated by the control procedures, both the internal ones and the ones foreseen by the programme itself.

Essentially, the body is inspected at three different levels, by the Commissioner of the Court of Auditors, the first level control authority and the lead partner. Nevertheless, special attention should be paid to the particularly positive role that the Court of Auditors commissioners had during the implementation of the project, by contributing to the solution of major bureaucratic problems.

- The time-consuming bureaucratic administrative procedures within the local authority, in connection with a number of issues such as budget reform, the procedure for tendering, the issuing of pre-payments, etc. caused considerable delays and difficulties in the implementation of the actions.
- The lack of relevant experience by the staff has proven to be counterproductive for a demanding programme such as Urbact and especially in the short time that this project had to be implemented.
- The difficulty some of the elected representatives had to realize the importance of this kind of innovative work for the development process in the city and especially for projects that are related to the formulation of strategies.
- The lack of a supportive mechanism for informing local authorities (or even creating a relevant network by them) on issues such as: expenditure eligibility procedures, financial management, staffing issues, institutional provisions, but also providing information that could make the process easier for bodies which do not have previous experience.

In any case, what results from the participation in the project is that it was a very special experience with multiple benefits for the municipality. The most important of these are:

- It enhances the know-how of the organization's staff, not only in the project's subject area, but also in a number of other issues such as project management processes, development of participatory processes, formation of communication strategies etc. Besides the officers who were directly involved in the project, the knowledge acquired by staff of other services that are indirectly involved, e.g. the financial services, was also important.
- It creates new prospects for the local development of the city in a sector where a comparative advantage exists, and at the local level it is a crucial economic activity with significant multiplier effects on key variables such as employment, local income etc.
- It contributes to the formation of a different culture, receptive to new approaches that, at least for the Greek context, could be considered innovative. The fact that all the city councilors who were actively involved

in the project were convinced of its importance and were then its strongest supporters is the most important evidence presumption.

- It contributes to the formation of networks and partnerships adopting Quadruple Helix approach, i.e., the municipality, academia, entrepreneurs and local community. It also greatly enhances cooperation with other European cities by penetrating into a large network of cities such as that of Urbact.
- The image of the city as a whole, both domestically and abroad, is upgraded. This upgrading resulted from the positive publicity that the project produced. Apart from the citizens, it also has to do with the image of a number of actors who have been involved in various ways during the implementation of the project such as managing authorities, ministries, universities etc.
- The municipality's profile is enriched due to the participation and implementation of competitive programmes; therefore it can claim with better chances of success funding from other competitive programmes of the European Commission.
- It discovers new sources of financing in a difficult economic environment where finding financial resources is vital.
- It promotes social innovation in the city and creates conditions for a living lab with significant benefits for the city.

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# RESULTS BASED MANAGEMENT WITHIN
# A NON-GOVERMENTAL ORGANIZATION

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## Abstract

The emphasis on organizational impacts has emerged the need to adapt a management approach that provides the framework to plan and implement strategies, policies and activities, in order to achieve specific results and provide feedback of the efficiency and effectiveness of the results achieved. Results Based Management (RBM) is a management strategy emphasizing on performance and achievement of results. The need to implement RBM within an NGO is recognized due to the fact that there is a lack of systems for setting agendas, measuring and reviewing the progress of a program. Hence, there is the need of a system that will report the progress regarding the results and outcomes.

*Jel Classification: L31, L2*
*Keywords: Results Based Management, NGO, results chain*

## 1. Introduction

Every organization focuses on results and its impact on the organization. Each corporation consists of an organized group of people aiming at specific goals. These people need a specific framework providing them with specific strategies and tools in order to achieve the operational vision. Nowadays there is a pressure on improving performance in terms of results (Bester, 2012) and effectiveness (McKernan *et al.*, 2016; Kusek and Rist, 2004). The emphasis on organizational impacts has emerged the need to adapt a management approach that provides the framework to plan and implement strategies, policies and activities, in order to achieve specific results and provide feedback of the efficiency and effectiveness of the results achieved. A management approach is useless, if it is not attached to specific results, to a method to measure the outcomes of this approach and its impact on the vision of the corporation. The demand to link management strategies to specific outcomes, as well as their

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impact on the initial goals has emerged the need to adapt the Results Based Management (RBM) strategy.

Over the last decades RBM is implemented in the private as well as in the public sector, in nonprofit as well as in profit organizations (Try and Radnor, 2007). This paper presents an analysis of the application of RBM within a nonprofit environment, i.e. in NGOs. The aim of this paper is to analyze the RBM theory and its implementation within NGOs.

## 2. What is Results Based Management (RBM)?

RBM is a management strategy emphasizing on performance and achievement of results (outputs, outcomes and impacts). RBM offers an approach in order not only to set specific results, but also to determine the inputs and activities necessary to achieve them (ICRC, 2008).

RBM is a management approach (UNWFP, n.d., p.4):

• Aiming on the efforts and resources of an organization, in accordance to anticipated results.
• Refining effectiveness, accountability and sustainability of operations.
• Refining accountability for resources used.

Why is RBM so important? RBM is a management approach that gives an organization a framework to act, helping its staff to (SIDA, 2014, p. 9):

• Clarify thinking and get a better focus.
• Develop the ability to manage programs.
• Plan better and evaluate results.
• Identify problems and take necessary adjustments to correct mistakes during implementation.
• Attain results.
• Learn lessons either from positive or negative results, and not do the same mistakes in the future.
• Be accountable.
• Have specific results for stakeholder support.

The expected results should be defined realistic, and the progress (in order to achieve the desired results) should be monitored to identify immediately if something goes wrong and to integrate the lessons learned into the management decisions. RBM is a structured and logical model, where the inputs, activities, outputs and outcomes are represented by a given project/ program or policy. But, the elements included in the RBM model varies between different organizations and changes over time (Gebremedhin *et al*., 2010). Particularly the elements of an RBM model are (Gebremedhin *et al*., 2010; McEvoy *et al.*, 2016; Cox, 2009):

**Input**

Inputs are every single resource that is used in the process, in order to achieve the desired results. These resources can be human, financial, material, etc.

**Activities**

Activities encompass every task (every action taken or work performed) that utilizes the inputs, in order to generate the desired output. It is the process that transforms inputs into outputs.

**Outputs**

Outputs are the products and services emerging from the activities that aim to transform inputs into outputs. Outputs refer to the completion of activities. It includes changes arising from the operation, which are relevant to the achievement of the outcomes.

**Outcomes**

Outcomes are the accomplished of short and medium term effects. They are the results of the outputs. An organization has less control on outcomes than it has on outputs.
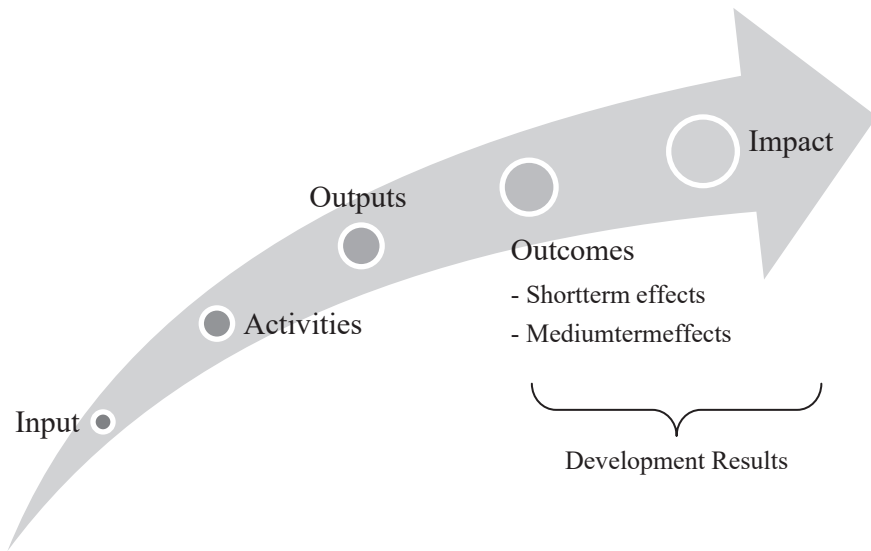
**Impact**

Impact is the positive or negative, intended or unintended results produced either directly or indirectly.

In the Results Chain the inputs, with the help of the activities, derive outputs, outcomes and impacts (ICRC, 2008, p. 17):
• Inputs are exploited in order to implement activities
• Activities result in outputs
• Outputs result in outcomes
• Outcomes lead to impacts

RBM is defined as a structured management approach that helps a corporation staying concentrated on the expected results, but not on the activities implemented. When an organization or a department or a team know what they have achieve, they can see how effective they were and take any further action that is needed to revise anything that is needed to achieve the desired results. It is clear that RBM can't be the same for every organization. It is being adapted by its culture in order to fulfill its goals. RBM was invented for private sector organizations in order to determine the financial results achieved (ICRC, 2008).

The RBM logic involves 1) Program Planning: where an organization determines the results it will achieve, 2) Program Monitoring and Reporting:

**Figure 1: Results Chain**

Outputs

Impact

Outcomes

- Shortterm effects

- Mediumtermeffects

Activities

Input

Development Results

Source: Gebremedhin, B., Getachew, A., and Amha R. (2010). Results-based Monitoring and Evaluation for Organizations Working in Agricultural Development: A Guide for Practitioners, Addis Ababa: International Livestock Research Institute, p.5
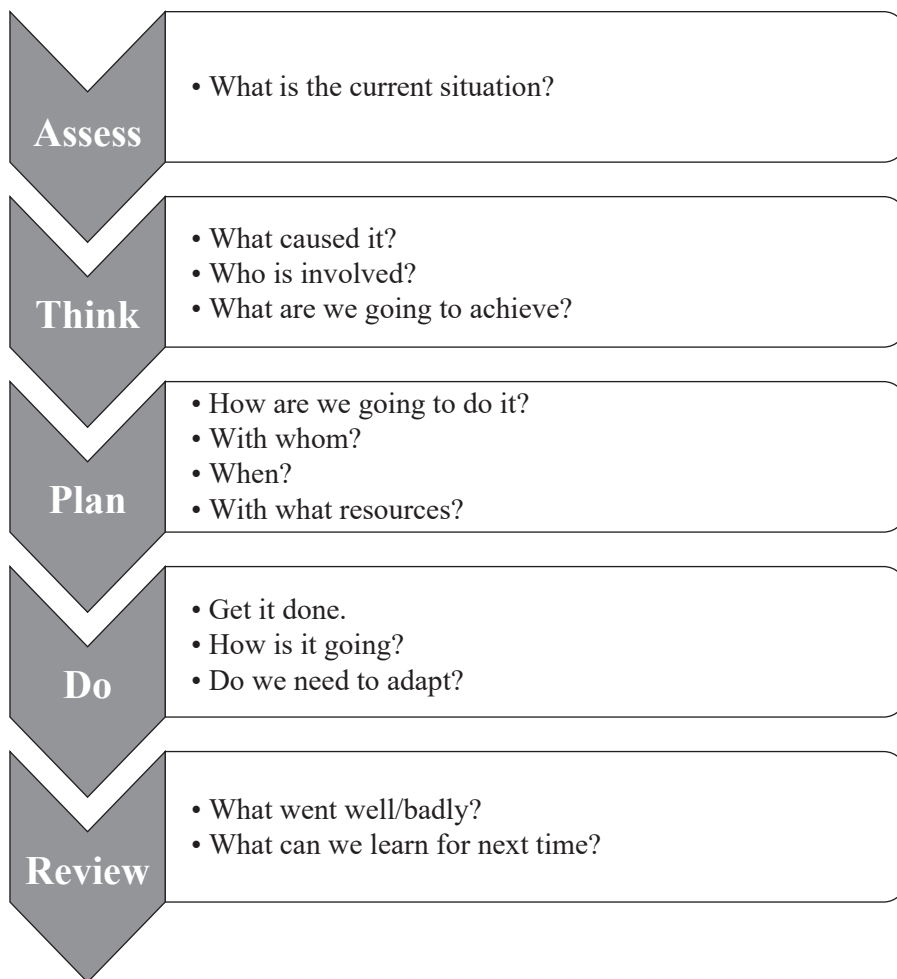
where the organization produces the output that results in the outcomes, 3) Program Evaluation: where the organization has specific results and learns from the experience. That way RBM helps managers to focus and achieve right results, because is a management approach where:

- expected results are clearly determined,
- information on progress is gathered on a regular basis to determine whether the results achieved add value, and
- necessary adjustments are made to correct any mistakes (SIDA, 2014, p.6). Hence the RBM logic consists of the following elements:

**Assess**

Before conducting any management approach it is vital to assess what the current situation is. What are its strong and weak points? Where does the organization need to be headed?

**Figure 2: The RBM Logic**

**Assess**
- What is the current situation?

**Think**
- What caused it?
- Who is involved?
- What are we going to achieve?

**Plan**
- How are we going to do it?
- With whom?
- When?
- With what resources?

**Do**
- Get it done.
- How is it going?
- Do we need to adapt?

**Review**
- What went well/badly?
- What can we learn for next time?

Source: ICRC (2008). Program/ project management: The results-based approach, ICRC, p.14

**Think**

Before implementing anything, thinking is essential to determine what the organization wants to achieve. Get a better focus.

**Plan**

Before implementing something there should be determined who is going to implement, what should be exactly done, what resources will he have available, how they are going to be exploited, in what chronological order a list of events will be conducted.

**Do**

Implementing a management approach is the most important part of any procedure. Everything must be implemented according to plan and not diverge from the initial planning process.

**Review**

Reviewing what went good or not is an essential part of any procedure or activity that is carried out. It becomes a valuable lesson in order to learn new lessons for next time and adjust any part of the results chain to get the desired results and achieve the desired goals. Reviewing at the end and assess gives the opportunity to make the necessary changes and become better, improving every time implementing RBM. Resources and activities carried out aren't wasted. Hence, it becomes an ongoing process leading to improved effectiveness and efficiency, i.e. measure results, correct problems, implement again.

With the help of RBM an organization can (SIDA, 2014, p.7):
• Define realistic expected results based on appropriate analysis.
• Identify the target group & program beneficiaries.
• Monitor progress towards results and resources consumed.
• Identify and manage risks.
• Learn new lessons, i.e. organizational learning.
• Report on results and resources.
• Evaluate results.

## 3. The Framework of a Non-Governmental Organization

Non-Governmental Organizations (NGOs) are mostly nonprofit organizations independent from any governments. Thus, NGO is every organization that is not established by a government. At the early stages of development, NGOs were usually small organizations, being developed to feel the gaps that

weren't provided by the state (Keengwe *et al.*, 1998). The basic characteristics of an NGO are: 1) being nonprofit, 2), depending on voluntary service, and 3) being funded by donations (Vedder, 2007, p.3).

NGOs are organizations that (Yaziji and Doh, 2009, p.5): 1) serve a specific public purpose, 2) don't distribute their profits, and 3) are created and supported by voluntary work.

The main characteristics and specialties of NGOs are (Bhose, 2003, p. 39):
* They are formed voluntarily. People commit to achieve the vision of the NGO.
* They are independent in planning and implementing their programs.
* They are flexible and quick in decision making. They are not stuck in bureaucracy and make decisions in order to meet their vision.
* They are not profit oriented or aiming at the benefit of the supporters.
* The staff has high motivations and is value driven.
* They aim and focus at people. They are people-centered.

According to Abraham (2011, p.3) NGOs are involved in the recognition, enforcement and regulation of rights of human beings, such as:
* Civil and political rights.
* Economic, social and cultural rights.
* Humanitarian rights.
* Rights of categories of people.

NGOs should not be confused with activist groups. NGOs have stable structures. A good approach to know what an NGO does, is to focus on their goals, membership, funding sources, etc. (Goel, 2004).

NGOs can be classified into two different broad groups, according to the World Bank (Folger, 2018):
* *Operational NGOs*, which focus on the design and implementation of projects. Operational NGOs can be community-based, national or international.
* *Advocacy NGOs*, which are organized to promote particular causes. They aim at a specific cause.

According to their activities, NGOs can be classified by orientation or by level of operation (Bhose, 2003; Cousins, 1991):

NGO types by orientation:
* *Charity Orientation* includes NGOs that aim to meet the needs of the poor-offering food, clothing or medicine; provision of housing, schools etc.
* *Service Orientation* includes NGOs that are welfare oriented, i.e. the provision of health, family planning or education services.
* *Participatory Orientation* includes all NGOs that develop self-help

projects. Local people gain the opportunity to implement a project, defining the needs, plan and implement the project.

- *Empowering Orientation* aims to help people to control their lives by raising their awareness of their own potentials. People should be able to have access and control over resources.

NGO Types by level of operation:
- *Community-based Organizations (CBOs)* are created because of the people's own ability to assess and initiate things independently. These can include sports clubs, women's organizations, and neighborhood organizations, religious or educational organizations.
- *Citywide Organizations* include organizations such as chambers of commerce and industry, coalitions of business, ethnic or educational groups and associations of community organizations
- *National NGOs* are organizations such as the Red Cross. Some of these provide assistance to local NGOs.
- *International NGOs*' activities are beyond implementing projects to help local NGOs.

As NGOs are non-profit, they require funding. Their sources can be (Folger, 2018):
- membership dues
- private donations
- the sale of goods and services
- grants

Even though they are independent from government, many of the NGOs rely on government funding.

According to Abracham (2011) in order to be successful and achieve its mission, an NGO must have the following features:
- Being flexible to modify or adjust any goals, plans, and activities, to successfully implement its programs. That is really important in case of a fluctuation in the needs of people or the circumstances.
- Having adequate legal protection, especially when it implements international programs.

NGOs have many tasks to perform and undertake various roles, like settings agendas, negotiating, conferring legitimacy and implementing ideas. Some of their major functions are (Essays UK, 2013):
 1. *Supporting aspects*: NGOs have the benefit to select a new program, specify its needs, the period it will be implemented and overcome some obstacles that governmental institutions face.

2. *Facilitate communication*: NGOs also can make communication easier between people and government.
3. *Evaluation and Research*: New projects that should be implemented, must be planned detailed and give specific directions how things need to be done, and monitor the process on an ongoing basis in order to achieve the desired results.

The number of NGOs world widely has increased dramatically. Goel argues (2004) that NGOs are all over the world and have a big influence. They have the ability to force leaders and policy makers to examine or recognize things they were ignoring. NGOs can often services that a government isn't able to offer, and can help in negotiations. Furthermore, they have the advantage of the knowledge, experience and neutrality. NGOs act independently and this gives them the advantage to overcome obstacles. Besides the widely accepted positive impact of NGOs, they have some weaknesses. Their objectivity can be sometimes compromised when trying to attract funds

## 4. Results Based Management within an NGO

The humanitarian sector is operating differently from the private. In the private sector, for instance, costumers are offered a variety of goods; they choose the goods offered based on information they have access to. The market is regulated, bringing a balance between the powers of supply and demand. In the humanitarian sector, people don't have the option to choose from whom they receive help. There is an unbalance between what is offered and what they really need or want. That is why the focus on performance and results is an ethical matter in the humanitarian sector (ICRC, 2008, p.15).

RBM shifts the focus of an NGO on inputs and activities to outputs and outcomes and impact. In order for RBM to be successfully implemented, there are some key areas in an NGO that need to be prepared for successful implementation, i.e. (Spreckley and Livelyhoods, 2011):

- *Organizational Direction*: Is the NGO clear about its purpose, where it is heading? This means that every single person working for the NGO, from the staff to the board members, should have a common direction, and clarity of the objectives that should be achieved.
- *Partnership Strategy*: Any activity of an NGO needs a network of partners during the execution of its mission. There should be clear how important each partnership is, which purposes are being achieved, as well as how loyal and reliant each partnership is.
- *Monitoring and Evaluation*: Monitoring and evaluation is very important

for RBM. Does the NGO have a Monitoring and Evaluation system installed in order to observe, check and assess? Are all employees informed about the monitoring and evaluation system, do they know how to use it? Is the information from this monitoring system used and analyzed? Is this analysis performed periodically?

- *Systems and Infrastructure*: Systems and Infrastructure refers to tangible as well as intangible systems. Every single system, no matter if it is a physical or soft system, should be in place and working properly in order for RBM to be implemented. There should be a Management Information System, where anytime can be determined, who got what and when.
- *Organization Structure and Skills*: The organizational design and diagram has to support the effort to apply RBM in an NGO. There should be clear who does what, what skills are necessary to implement an activity, having a clear direction towards results.
- *Human Resource and Skills*: The staff, the volunteers, the board members of an NGO should be involved, committed and support the implementation of the RBM. It is useless to adapt any management approach, if anyone involved in the organization rejects, and denies applying it.
- *Fairness and Equality*: When an NGO decides to implement RBM is should keep in mind that any program being implemented focuses on democracy, equality, is fair and does not have a negative impact in the environment.

An NGO needs to manage and represents the benefits of its activities. The need to implement RBM at an NGO is recognized due to the fact that there is a lack of systems for setting agendas, measuring and reviewing the progress of a program. There is the need of a system that will report the progress regarding the results and outcomes. Furthermore, the target population of each program, before the program is implemented, should be determined. McKernan *et al.* (2016, p.8) suggest that there are four elements regarding the use of RBM within an NGO, i.e.:

1. The identification of specific results.
2. A system to measure results.
3. The identification and active management of risk to programs.
4. A process of review and adaptation.

The results chain consists of two types of indicators: implementation indicators (input, process and output) and effect indicators (outcome and impact). Because of the difficulty of determining impact in the humanitarian sector, there is the tendency to select implementation indicators instead of impact indicators. It isn't easy to show the impact of a specific activity. Hence it is easier to influence implementation indicators than effects indicator (Kjellström, 2013).

**Figure 3: Control Factor**
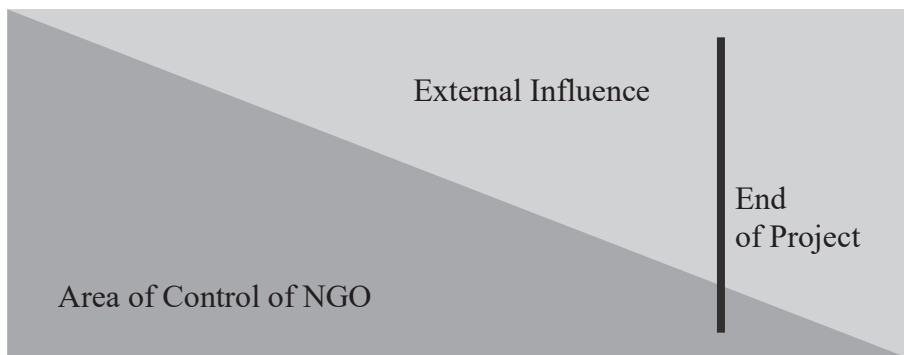


Source: Kjellström, M-L. (2013). Result-Based Management and Humanitarian Action – Do We Really Want to Go There? Master Thesis. Uppsala University, p.20 (adapted)

According to a study conducted by McKernan *et al*. (2016) during a 5 years project in the nonprofit sector, RBM has been incorporated in the organization. The staff and local partners gained knowledge from RBM and appreciated the advantages of this particular management method. With the help of RBM the aims and objectives of the program have become clearer; the programs are better designed and managed, improving the quality of annual reports.

The strategies to incorporate the RBM approach into an NGO are described below McKernan *et al*. (2016):

- Setting a unit that will help the implementation of a program. It will provide assistance and help to all divisions, in order to implement RBM effectively, plan, manage and represent the effects of the work of the NGO.
- Each program should conduct a study prior to implementation of the program, in order to represent the status of the target population. This is necessary in order to compare program results. Annual reports, mid-term and final assessment of the progress are necessary, as well as comparison to the studies made prior to implementation.
- Programs with similar topics should have standardized outcomes and indicators.

The key terms of RBM are described in the results chain that bridges inputs with impacts. Cox (2009) suggest following analysis for implementing the results chain in an organization, like an NGO:

- INPUTS: inputs are the human and physical elements, necessary to execute a program. Having the inputs defined allows planning a budget.

- ACTIVITIES: activities encompass every task that is performed using and combining the inputs. Activities with a common goal should be grouped together, under a heading, for example: promotion, networking, etc.
- OUTPUTS: outputs are the first and instant results. The outputs are connected to activities, so the number of outputs is the same as the number of activities.
- OUTCOMES: outcomes are derived through a collection of outputs. They describe the changes that are supposed to be implemented through the efforts of employees and volunteers of an NGO.
- IMPACTS: impacts emphasize why a project is important, what is its contribution, where it is heading, and what its intentions are.

Basically RBM consists of three stages (SIDA, 2014, p.6): 1) Program Planning: where an NGO decides what the results should be attained, 2) Program Monitoring and Reporting: where an NGO creates output that leads to changes, i.e. the outcomes and 3) Program Evaluation: where an NGO represents its results and learns from the experience. This means that each program implemented by an NGO needs to be carefully planned in order to achieve the desired outcomes. Hence, there should be prior to implementation determined what needs to be done, during implementation there should be a continuous assessment of what is really implemented and if there is any gap from the expected results, changes should be done if necessary to deliver the expected outcomes. In order to implement successful RBM in an NGO, there is a 10 step model providing the direction to plan, implement and maintain this management system successfully. The steps to implement a Results Based Monitoring and Evaluation System are described as followed (Kusek and Rist, 2004):

1. Conducting a readiness assessment.
2. Agreeing on performance outcomes to monitor and evaluate.
3. Selecting key indicators to monitor outcomes.
4. Baseline data on indicators. Where are we today?
5. Planning for improvement-setting realistic targets.
6. Monitoring for results.
7. The role for evaluations.
8. Reporting findings.
9. Using findings.
10. Sustaining the Results Based Monitoring and Evaluation System within the organization.

The basic idea of RBM is to measure performance, i.e. objectively assess how well an NGO program is serving its goals. Consequently, objectives must be set, as well as indicators and targets, while the performance is constantly

monitored by collecting data on results, analyzing them and writing reports (Binnendijk, 2000).

## 5. Conclusion

During the last years, the growing financial constraints and the pressure to effectiveness and accountability of humanitarian work, have created the need of management systems towards results. RBM has two main purposes, i.e. management improvement and performance reporting (Vähämäki, *et al.*, 2011, p.7). Accordingly, RBM helps NGOs to achieve significant changes, as results are created, and to be more accountable.

RBM is a management method that can help the staff and local partners of an NGO to gain a better understanding and achieve better results, design, implement and manage programs better, improving the quality of annual reports (McKernan *et al.*, 2016). RBM is not a stable management approach, but is focuses on improving performance and outcomes, taking into consideration, flexibility, assessment, adapt new approaches through learning (McEvoy *et al.*, 2016).

As no management approach is perfect, so research and experience have shown that RBM is not perfect to implement in an NGO. The reasons can be summed up to the following (Mango, 2018):
- RBM doesn't take into consideration that social changes can't be foreseen, controlled and eliminated.
- Local situations and conditions can change during the implementation of a project, which haven't been taken into consideration during the initial planning process.
- Some NGOs goals can't be easily determined, defined and valued. Changes may be intangible and not objective.
- NGOs can't have an influence on social results, which don't emerge always in the short-term. This means that results can't be always linked to an NGO. Some suggestions to overcome these flaws could be    (Mango, 2018):
- Determining the planning process with beneficiaries,
- Give the choice to NGO managers to attain outputs or outcomes within budget rather than perform activities within budget.

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# THE GREEK ECONOMIC CRISIS,
# THE ROLE OF THE TROIKA AND THE IMF 2009-2017

## K. GAROUFALIS*

## Abstract

The focus of this paper is legacy debt and ways out of it. It introduces debt and credit as a basis for understanding the ongoing financial crisis in Greece. The key questions which will be answered are:
– What is a debt
– How much debt is acceptable
– What is a default problem
– Why Greece has so much debt
– What was the role of the Troika and IMF in the case of Greece
*JEL Classification: H12, H6*
*Keywords: crisis, IMF, Troika, debt crisis, macroeconomics*

## 1. Introduction

The key issue of this article is debt and ways out of it. Why Greece is in this situation and how it could avoid it in the future is not the subject of this article.

Credit and debt are useful tools for shifting income. A borrower can invest or consume now and pay back later from future cash flows. In the real world, savers who supply of capital can meet investors who demand for capital. Both are in equilibrium brought about by the price of credit and the interest rate. From this point of view, the capital market is working in a perfect way. But the real world shows problems rising from an overloaded debt that could lead to default and the consequences of such a default can reach far beyond the individual borrower-lender relation and can damage the financial system as well as the world economy for a long period of time.

The article introduces credit, debt, financial stress and the role of the institutions as the basis of understanding the financial crisis and the solutions discussed for solving the problem.

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## 2. Debt crisis

Generally speaking, a credit is a contract that can be shaped by borrower and lender. The common features of a credit contract are
• Principal which is the nominal or face amount pledged to the borrower by the lender
• Interest rate which is the percentage of the credit outstanding to be paid to the lender every year
• Redemption, the installments for paying back interest and face value
• Maturity, the time after which the credit must be paid back

Credit contracts come in countless varieties and the most common are bank credits, bonds and collateralized or asset backed credit. Banks grant credit to individual as well as to companies. The conditions for credit are determined by risk assessment and the contract normally is held by the bank to maturity. On the other hand, companies, banks and sovereigns are emitting bonds. A bond can be traded in the financial markets before it matures. The current price of the bond named present value, depends on the remaining time to maturity and on the discount rate applied. Since a bond involves payments over time, each payment must be discounted to today's value. The interest payment in relation to the current value of a bond results in a profit rate of this asset.

It should be pointed out that some types of credit come with collateral attached. For example, in financing real estate the bank can seize the house in case of the mortgage not being serviced according to the contract terms. In addition, some credits given by financial institutions to other financial institutions require collateral: assets -normally securities - must be deposited with the lender and in case the value of the securities declines in the financial markets the lender has the right to ask for additional assets in order to reach the previous level of value of collateral.

Debt is an amount of money borrowed and not yet paid back. When this amount of debt is too large, then lenders are afraid of a default. Every lender runs a certain risk of losing part or all of the loans outstanding. An insurance sheltering against the expected loss is offered in the financial markets, the so called Credit Default Swaps (CDS). The CDS is the insurance premium paid to the insurer and can be traded in the financial markets without being tied necessarily to a specific credit.

Debt is sustainable as long as current cash flow can guarantee current debt service and expected future cash flow are large enough for covering future payment obligations. The future debt sustainability is partly depending on the activities financed by today's deficit.

During the ongoing crisis the banks were suffering by the so called non-performing loans.

A bank is able to repay all debt provided that customers pay back the credit granted in full and on due time. Since some borrowers will default on their credits, a bank must provide equity for covering the loss. European regulations require equity as a certain percentage of bank assets. For each loan granted a specific risk factor is assigned. If risk is zero, then no equity needs to be provided. If risk of non performance is, say, 50% then equity to the amount of 50% of the loan must be provided. The ratio between risk weighted assets and capital is known as *capital ratio*. Furthermore, assessing debt sustainability of banks is a complex task depending on the assumptions made for future economic developments and other factors as well. Banks had to pass from stress tests to evaluate their performance and the need to ask their shareholders for more equity as a safety buffer.

## 3. Greek sovereign debt crisis

In order to better understand the sovereign debt crisis in Greece, a longer view is needed

The period 1989-2009 which is bounded by two major fiscal crisis in Greece, the 1989-1993 crisis and the ongoing crisis. In both periods deficits exceeded 15% of country's GDP. In between, Greece entered the euro-zone and adopted the euro, a strong currency. For a clear view of the macro-economic position of the country, some key economic factors are stated:
- weak economic activity, 1.2% average growth
- very high inflation rate, 16.8%
- high real and nominal interest rates
- high general government deficits, 13.6% of GDP, the 1990 deficit reached 15.9% of GDP
- fast accumulation of debt as a result of very high interest payments from 6.8% of GDP in 1989 to 11.4% of GDP in1993

Taking all these into consideration, fiscal consolidation *was not sustainable*. Furthermore, after entering the euro-zone, Greece had to increase the fiscal discipline as well as the competitiveness of the economy. Greece did neither of them.

Greece entered the euro-zone with two fundamental weaknesses, on the one hand the debt to GDP ratio was too high exceeding 100% of GDP which affected growth prospects and was setting severe limitations on fiscal policy

and on the other hand the institutional framework which determines fiscal outcomes was extremely weak, almost non-existing.

As a result of all the above, spreads began to rise in early 2008 and Greece was warned that the credit rating would be lowered due to the high public debt as well as the high public spending. Greece, should have sent a strong message to the markets, but id didn't!

Two key points characterized the sovereign debt crisis that Greece faced during the financial crisis, named
- structural weaknesses in the Greek economy
- fiscal data on government debt levels and deficits had been undervalued by the Greek government.

The introduction of the euro in 2001 reduced trade costs among the euro-zone countries and increased the overall trade volume. Unfortunately, labour cost increased tremendously in Greece eroding the country's competitive edge. As a result Greece's current account deficit rose significantly. A trade deficit simply means that the country is consuming more than it produces which requires borrowing and direct investments from other countries. As Greece belonged to the euro-zone, currency depreciation was not possible to help the economy to become more competitive. Greek wages felt by more than 25% during the period 2010-14 and this resulted to reduce income and GDP resulting to a severe recession, decline in tax receipts and a significant rise in the debt-to-GDP ratio. In addition, unemployment rate rised to 26%.

The main causes reported for the Greek crisis can be summarized in the following points:
- *GDP growth*. The global financial crisis had a particular large negative impact on GDP growth as two of the country's largest earners, tourism and shipping, were badly affected by the crisis with revenues falling by 15%.
- *Government deficit*. Imbalances which were developed during the period prior to the economic crisis were the key points for the government deficit. Output increased in nominal terms by 40% while government expenditure increased by 87% against an increase of tax revenues of 31%.
- *Data Credibility*. Greece provided unreliable fiscal data which were always revised making impossible any prediction regarding the GDP growth, deficit and debt as well.
- *Government spending*. The Greek economy was fast growing during the period 2000-07 at a rate of 4.2% as foreign capital was injected into the economy. The government spending was huge mainly for military purposes. In addition, Greece's budget deficit was funded by running an extensive foreign financial surplus. Money inflows stopped when the crisis started

## Diagram 1: Real GDP growth (Bank of Greece)
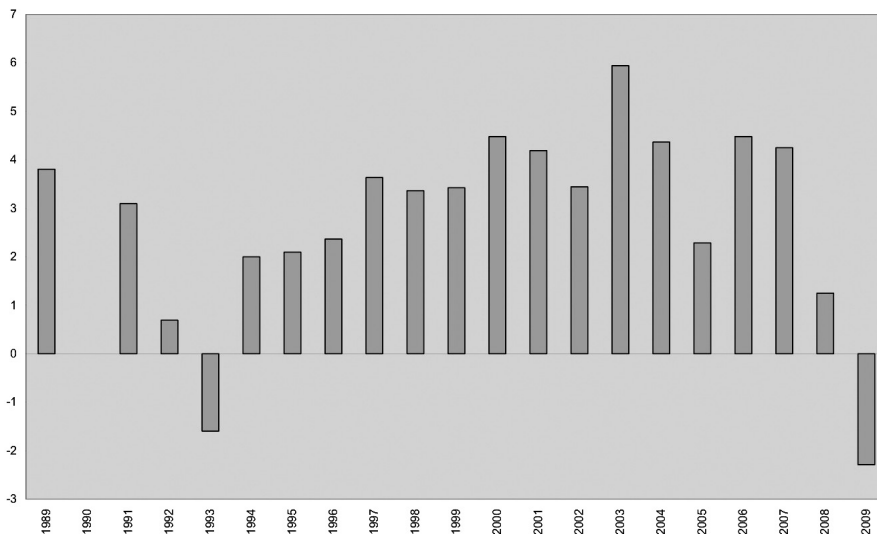


## Diagram2: Primary General Government Deficit (% of GDP) (Bank of Greece)
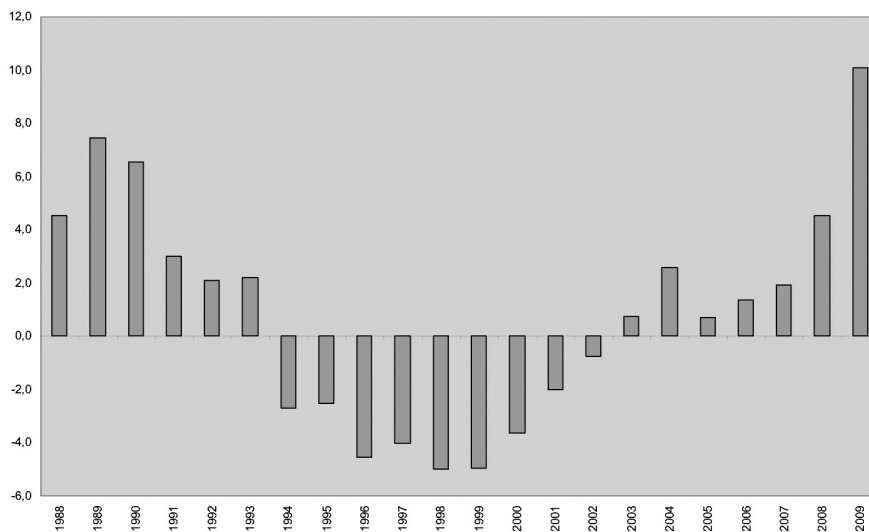
and foreign financial surplus was reduced. Greece was forced to reduce its budget deficit.

• *Tax evasion*. It was well known that the country was suffering from uncollected tax for many years. In addition "black economy" rised to a considerable high percentage of 24.3% of GDP.

From all the above it was obvious that Greek economy was not sustainable and bail out programes were needed to help the economy to recover soon. Greece, was helped by three bail out programs. The first economic adjustment programe was announced in spring 2010. The euro-zone countries together with the IMF granted a loan of 110 billion euros. Credit rating agencies immediately downgraded the Greek government bonds to an even lower status. In 2011 Greece was needed an additional financing package of 109 billion euros. In addition to this package the euro-zone partners agreed to reduced the interest rate to 3.5% and extend the repayment period of the previous financial aid to 15 years from the initial period of 7 years. Unfortunately, due to important delays in making the necessary fiscal adjustments the Greek economy presented fiscal indexes which were worst and the need for an additional financing of 86 billion euros was a fact in 2015.

From all the above it was obvious that the banking system was suffering and needed a recapitalization soon. This was made by the Hellenic Financial Stability Fund with an amount of 24.4 billion euros, amount which was immediately injected to four largest Greek banks. The recapitalization was considered as a debt increase and in return of this the government was received shares in those banks.

## 4. How to reduce the debt burden

The debt burden of Greece is a huge amount and the Greek government has to negotiate with the other euro-zone partners who helped Greece over the last years, ways of reducing this debt burden. There are options to reduce the net present value of Greek public debt servicing costs by at least 15% of GDP without incurring financial losses to the creditors.

European lenders have already made several concessions to help Greece service its debt. Lower interest rates, extension of the maturity period for the loans repayment, passing on to Greece the profits made by the ECB and national central banks on their Greek government bond holdings are some critical measures undertaken to help the badly damaged country's economy.

Saying that there are such options, a reduction in the net present value of debt servicing costs does not necessarily mean that more money is available

now for Greece to spend. The reduction simply means that future debt servicing costs are reduced compared to the current ones and this means that Greece has to spend less on financing its debt in the future.

The key options can be summarized in the following issues:
- Reduce the lending rate on the country's loan facility
- Extending the maturity of the loans repayment period
- Extending the EFSF loans' maturity
- Buying back the Greek government bond holdings of the ECB and National Central Banks
- Swapping the currently floating interest rate loans to fixed rate loans
- Privatisation using European funds where it is necessary
- Make credit accessible
- Decrease debt levels

## 5. The role of the Troika and IMF

What is the Troika? It is originally refers to the Russian word for a carriage with three horses, but it can be used to describe any type of collaboration of three parties. In the context of the European crisis the Troika includes three institutions named:
- The European Commission (EC)
- The European Central Bank (ECB)
- The International Monetary Fund

What Troika does, is monitoring countries in severe economic trouble that are receiving financial loans provided for by the EU and the IMF. The loans although they have a lower interest rate than the ones on the capital market, are hardly meant to help the economies of suffering countries to recover. The Troika acted for the first time in Greece in 2010. The country asked for a financial assistance from the institutions which undertook a joint mission to Athens.

Who are the players that Greece is having to negotiate with?
- *The European Union*. The EU is represented in talks through its executive arm, the European Commission. In May 2010, the EU and the IMF agreed to bail out Greece. Of the 110 billion euros designated, 89 billion euros comes from EU. Germany, the most powerful member of the euro zone, is one of the 17 nations of euro. If any country fails to ratify the decisions they take collectively, the plan dies.
- *International Monetary Fund*. The IMF was created at the conference of Bretton-Woods in 1944 as a means to regulate trade between nations in the

aftermath of the great depression and World War II. Key task of the IMF is to lend money in case of deep economic trouble.

- *European Central Bank.* The third member of the Troika is the central bank of the 17 nations that use the euro. In May 2010, the ECB started to buy Greek bonds in an effort to bring borrowing rates down and calm the markets. Since then, it has bought the bonds of all the countries whose yields have shot up on debt fears.

In August 2015 after eight months of intensive negotiations with Europe's Troika, the Greek government capitulated to the Troika's demands imposing more austerity on Greece and its people in exchange of an additional loan of 98 billion euros. The amount *did not* represent economic assistance to Greece to stimulate its economy, but was earmarked almost exclusively to pay back interest to the Troika, Europe banks and Europe investors for prior loans made to the country.

The IMF's analysis regarding the critical economic situation in Greece was pesimistic. Greece's public debt had become highly unsustainable and it was expected to peak at close 200% of the GDP in the coming few years. The IMF insisted that there is a need for debt relief not just additional debt or debt restructuring.


## 6. Financial Institutions to support sovereigns

The bankruptcy of a company is covered by legal procedures in national law. There is no standard procedure in place, however, for the default of a sovereign. The IMF is in charge of handling sovereign bankruptcy of one of its members on a case-by-case base. In the context of the financial crisis in the EU, some measures were taken and a new institutional framework was emerging: The European Stability Mechanism (ESM).

When the financial crisis erupted in the euro-zone, it took the institutions of the EU by surprise. There was no mechanism in place in the established European Treaties for providing support by the European Community. The ESM is a permanent International Financial Institution under public international law. The ESM' s instruments are:

- Precautionary credit lines i.e the right of the recipient country to call in a certain amount of credit without delay
- Loans with a maturity of up 30 years
- Financial assistance to recapitalise banks
- Buying member's sovereign bonds in primary and secondary markets
  The ESM generates capital by emitting bonds in the international financial

markets. The price of borrowing depends on the creditworthiness of the mix of members.

The International Monetary Fund (IMF) is the other supporting institution, founded for supporting member states in cases of balance of payment problems. The IMF takes action only when the problems are obvious already and the country applies for support.

While the IMF is a useful organization for liquidity problems of sovereigns, it has neither a mandate nor instruments when it comes to

- prevent financial problems early - best before they emerge
- solving the trade-off between austerity imposed by conditionality on the one hand side and supporting growth on the other hand side.
- dealing with insolvency problem of sovereigns
- reducing existing debt

## 7. Ways out of debt

The most pressing problem is legacy debt: the debt burden accumulated over the past decades and due to the recent crisis. There are different scenarios possible in the uncertain future and a forecast is impossible since there are no "likelihoods".

The following paths into the future merit consideration;

- *Continue with a chronic disease*. The debt-to-GDP ratio deteriorates further and cheap credit can't be absorb for productive projects. Social unrest and tention in societies increase and frustration feeds into international conflicts.
- *Do away with debt-restart with a clean state*. In order to end debt deleverage of sovereigns, private households and companies and in order to repair balance sheets of banks, a drastic haircut is needed.
- *Shock and collapse*. Many sovereigns and banks are still in a tense financial situation. A single event could trigger fear and contagion with the consequence of a collapse of the system.
- *Full solidarity*. In the EU there are strong and weak members. If the strong countries would be ready to shoulder legacy debt, then they will loose competitiveness but could dampen the debt problems of the weak countries. The hope behind this concept is that the combined economic strength is sufficient to pull the whole group back from the brink of collapse.

## 8. The present situation in Greece

The present development is very depressing for people who want toface

the challenge of building a future for this country. Greece pays mainly the non-performing structural reforms over the last 40 years. Lenders, are ready to give a deep haircut, but not in an official and open version (debt relief). Besides all the above, money is gone and will never come back. On the other hand, the government has to change its attitude and work constructively, then it might start a re-building of trust and of the economy.

In my humble opinion, financial distress is not the main problem any more in the country. I think that the main questions everybody has to answer are:
- What is the future "business model" or "business plan" of Greece beyond agriculture, tourism and shipping?
- How will this process of discovery be started and guided in the Greek society?
- How to attract foreign capital into this long term process of innovation and re-building?
- How to win back the bright Greeks from abroad?

I think we should look into development theory and development policy for Greece.

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"Financial and Sovereign debt crisis" some lessons learned and those forgotten", IMF working paper(WP/13/266), 1-21.

"Debt Sustainability assessment: Mission Impossible" Review of economics and institutions (3)1-37.

## 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.

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**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.

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**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