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**The effects of tax structure on economic growth**: **evidence from Pakistan economies**

**Mahfooz Khan Durrani\*1, 2, Saif ul Amin3, Sammandar Khan3**

*1Department of IDS, University of Agriculture, Peshawar -Pakistan*

*2Institute of Social Policy & Research, Affiliated with Bacha Khan University, Charsadda-Pakistan*

*3COMSATS Institute of Information Technology, Islamabad-Pakistan*

*\*Corresponding author E-mail:* *msmahfoozkhan@yahoo.com*

**GDP**

**Taxes**

**Fig.1** Taxes effect on GDP

**Source:** Durrani, 2015.

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| ***Table. 1*** *Association between Taxes and Gross Domestic Product* |
|  | ***Taxes*** | ***GDP*** |
| *Taxes* | *Pearson Correlation* | *1* | *.995\*\** |
| *Sig. (2-tailed)* |  | *.000* |
| *N* | *32* | *32* |
| *GDP* | *Pearson Correlation* | *.995\*\** | *1* |
| *Sig. (2-tailed)* | *.000* |  |
|  | *N* | *32* | *32* |
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| *\*\*. Correlation is significant at the 0.01 level (2-tailed).****Source:*** *Secondary data* |

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| **Table. 2** ADF Test for level intercept |
|  | **t-Statistic** | **Prob.\*** |
| Augmented Dickey-Fuller test statistic | 1.304704 | 0.9981 |
| Test critical values: 1% level | -3.661661 |  |
|  5% level | -2.960411 |  |
|  10% level | -2.619160 |  |
| **Source:** Secondary data |  |  |

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| **Table. 3** ADF test for GDP (1st diff-trend and intercept) |
|  | **t-Statistic** | **Prob.\*** |
| Augmented Dickey-Fuller test statistic | -5.670902 | 0.0003 |
| Test critical values: 1% level | -4.296729 |  |
|  5% level | -3.568379 |  |
|  10% level | -3.218382 |  |
| **Source:** Secondary data |  |  |

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| **Table.4** Co-integration Rank Test for Trace |
| **Hypothesized No. of CE(s)** | **Eigen value** | **Trace Statistic** | **0.05 Critical Value** | **Prob.\*\*** |
| None | 0.176259 | 7.259651 | 15.49471 | 0.5477 |
| At most 1 | 0.046952 | 1.442690 | 3.841466 | 0.2297 |
| **Source:** Secondary data |  |  |

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| **Table.5** Co-integration Rank Test for maximum Eigen value |
| **Hypothesized No. of CE(s)** | **Eigen value** | **Max-Eigen Statistic** | **0.05 Critical Value** | **Prob.\*\*** |
| None | 0.176259 | 5.816961 | 14.26460 | 0.6368 |
| At most 1 | 0.046952 | 1.442690 | 3.841466 | 0.2297 |
| **Source:** Secondary data |  |  |

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| **Table.6** Pair wise Granger Causality Test for Lag-2 |
| **Null Hypothesis:** | **Obs** | **F-Statistic** | **Prob.** |
| Taxes does not Granger Cause GDP | 30 | 2.49930 | 0.1024 |
| GDP does not Granger Cause Taxes |  | 6.99009 | 0.0039 |
| **Source:** Secondary data |  |

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| **Table.7** Pair wise Granger Causality Test for Lag-4 |
| **Null Hypothesis:** | **Obs** | **F-Statistic** | **Prob.** |
|  Taxes does not Granger Cause GDP | 28 | 1.53883 | 0.2312 |
|  GDP does not Granger Cause Taxes |  | 2.20685 | 0.1070 |
| **Source:** Secondary data |  |

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