

## CHAPTER 5: PRINCIPAL COMPONENTS ANALYSIS

### Analysis of economic and demographic data

Correlation Matrix

		INCREASE	LIFE	IMR	TFR	GDP
Correlation	INCREASE	1.000	-.731	.753	.855	-.476
	LIFE	-.731	1.000	-.922	-.887	.687
	IMR	.753	-.922	1.000	.876	-.677
	TFR	.855	-.887	.876	1.000	-.601
	GDP	-.476	.687	-.677	-.601	1.000

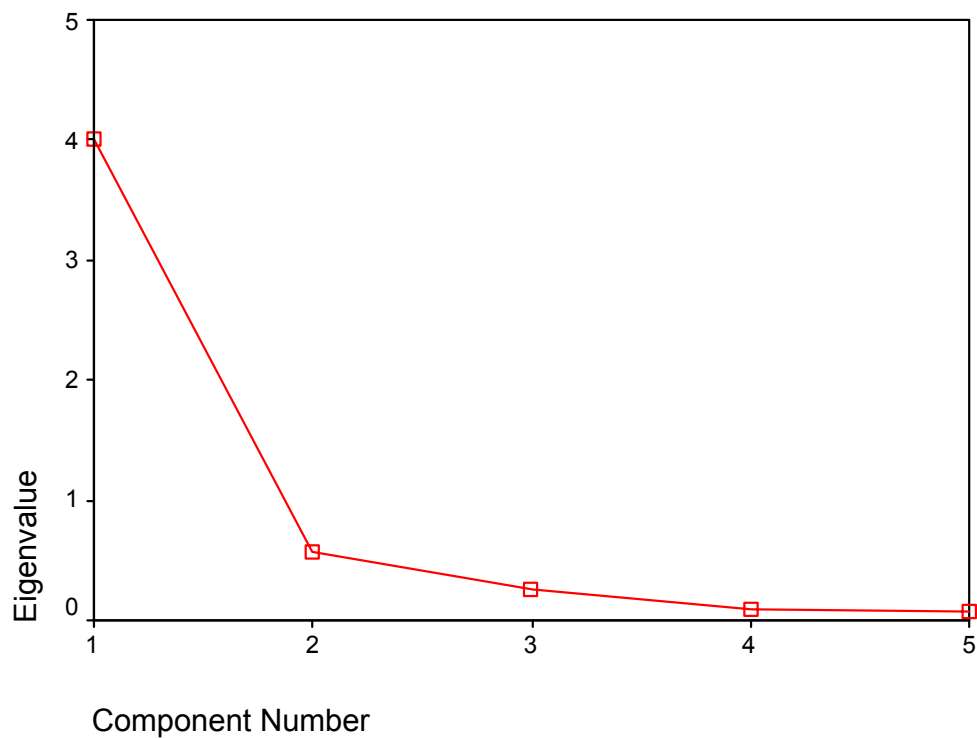
### 5 Components

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.014	80.279	80.279	4.014	80.279	80.279
2	.569	11.376	91.655	.569	11.376	91.655
3	.253	5.051	96.707	.253	5.051	96.707
4	9.587E-02	1.917	98.624	9.587E-02	1.917	98.624
5	6.880E-02	1.376	100.000	6.880E-02	1.376	100.000

Extraction Method: Principal Component Analysis.

### Scree Plot



**Component Matrix<sup>a</sup>**

	Component				
	1	2	3	4	5
INCREASE	.857	.386	.324	8.793E-02	-6.33E-02
LIFE	-.950	3.453E-02	.239	5.022E-02	.189
IMR	.951	-9.02E-03	-.210	.196	.117
TFR	.950	.188	-1.38E-02	-.217	.124
GDP	-.755	.619	-.214	1.106E-02	-6.98E-03

Extraction Method: Principal Component Analysis.

a. 5 components extracted.

## 2 Components

**Communalities**

	Initial	Extraction
INCREASE	1.000	.883
LIFE	1.000	.904
IMR	1.000	.904
TFR	1.000	.938
GDP	1.000	.954

Extraction Method: Principal Component Analysis.

**Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.014	80.279	80.279	4.014	80.279	80.279
2	.569	11.376	91.655	.569	11.376	91.655
3	.253	5.051	96.707			
4	9.587E-02	1.917	98.624			
5	6.880E-02	1.376	100.000			

Extraction Method: Principal Component Analysis.

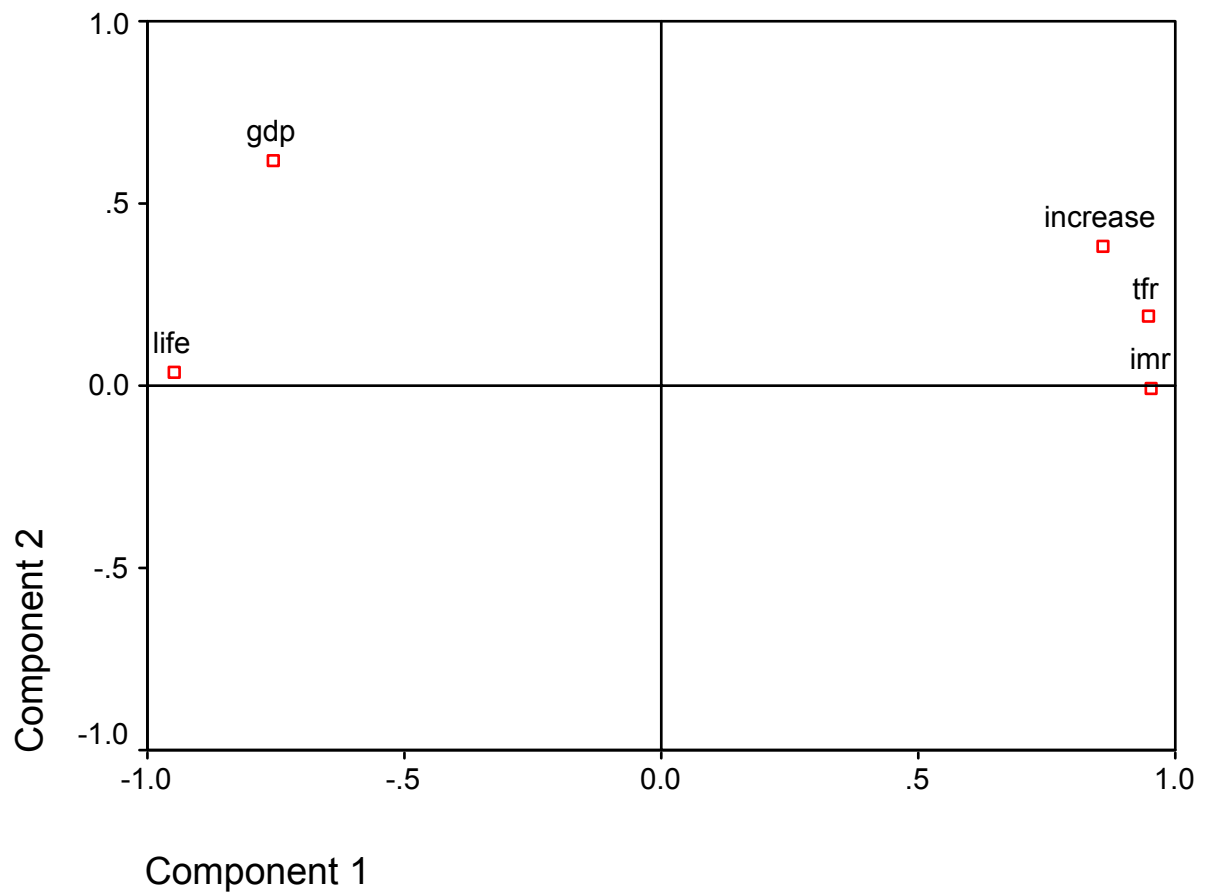
**Component Matrix<sup>a</sup>**

	Component	
	1	2
INCREASE	.857	.386
LIFE	-.950	3.453E-02
IMR	.951	-9.02E-03
TFR	.950	.188
GDP	-.755	.619

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

## Component Plot



**Component Score Coefficient Matrix**

	Component	
	1	2
INCREASE	.213	.678
LIFE	-.237	.061
IMR	.237	-.016
TFR	.237	.330
GDP	-.188	1.089

Extraction Method: Principal Component Analysis.

Component Scores.