U.S.A. GDP-KITE 1989-2004 REPORT

By

Mario Arturo Ruiz Estrada

Introduction to GDP-Kite Analysis

- In this study, the application of MD-Cartesian space is demonstrated by its use in finding the national income "Y" accounts divide GDP into four broad categories of spending. In particular, the GDP is the sum of consumption, investments, government and net trade, represented by "C = X1", "I = X2", "G = X3" and "NT = (X-M) = X4" respectively in the expressions below. In the Figure 1, these four broad categories of spending of GDP are independent variables represented by X1, X2, X3 and X4 respectively, while the national income is represented by "Y". For demonstration purposes, the following data are used: U.S. consumption (C); investment (I); government (G); net trade (X-M) from 1989 to 2004. Steps involved in the application of MD-Cartesian space are as follows.

- **First step -** to define national income: Expression (1)

  (1.) Y = GDP = C+I+G+(X-M).

- **Second step** – The construction of the "*GDP Kite"* is based on join GDP (Y) and the four broad categories of spending of C = X1, I = X2, G =X3 and NT = X4. We assume that join C, I, G, NT is not meaning of relationship or interdependency. We join all the four broad categories of spending (C, I, G and NT) plus the GDP to build the "*GDP Kite"* to study the behavior of all economy from a global perspective.

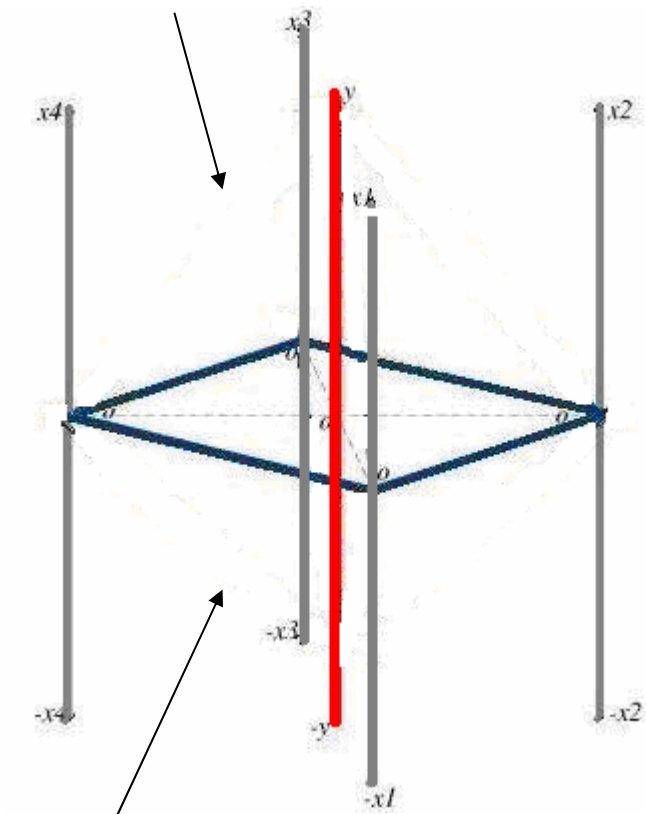
Multi-Dimensional Cartesian Space

- In MD-Cartesian space (see Ruiz, 2005) consists of five axes ([X1, X2, X3, X4], Y), representing four independent variables “X1”, ”X2”, “X3” and “X4” and one dependent variable “Y” respectively. Each “X” variable (X1, X2, X3, X4) and “Y” variable has its individual axis that is a vertical line with both positive and negative values. The positive and negative values are represented by ([(X1,-X1), (X2,-X2), (X3,-X3) (X4,-X4)], (Y,-Y)] on the MD-Cartesian plane (see Table 1).

- In the case of 2-D and 3-D Cartesian plane, the individual variables can be anywhere along the vertical and horizontal axes; but in the case of MD-Cartesian space all variables (Xi) and the “Y” variable are either on the positive side of respective axes together on the negative side of their respective axes together (see Figure 1). In other words, the values of all “Xi” (X1, X2, X3, X4) and “Y” can change in different directions. Therefore, any change in some or all “Xi” will affect “Y” directly.

- Representing the dependent variable, the fifth axis, “Y” is positioned in the center of the Graph (among the other four axes). “Y” has a positive value and negative value. It is the convergent point of all the other four axes X1, X2, X3 and X4. In other words, all “Xi” axes converge at the “Y” axis. The result is a graph represented by a plane that can be reshaped into two cubes or one cube.

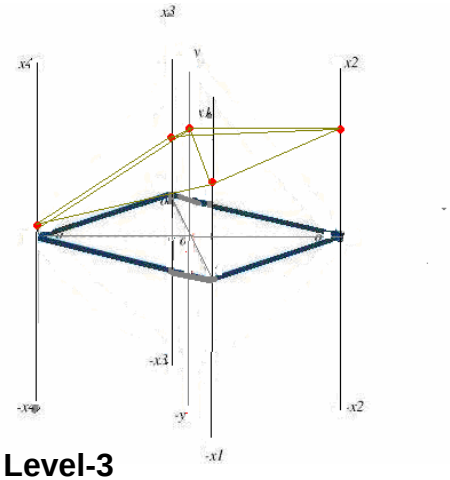
First cube or positive quadrant



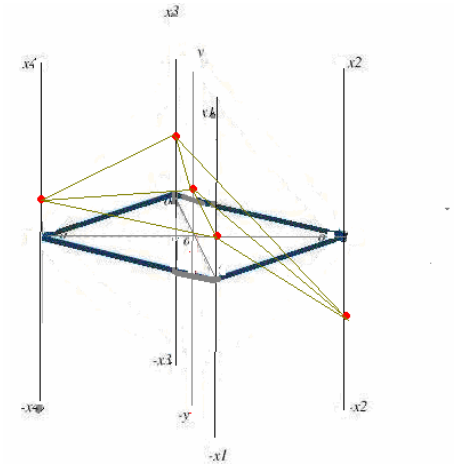
Second cube or Negative quadrant

Possible Results of GDP-Kite

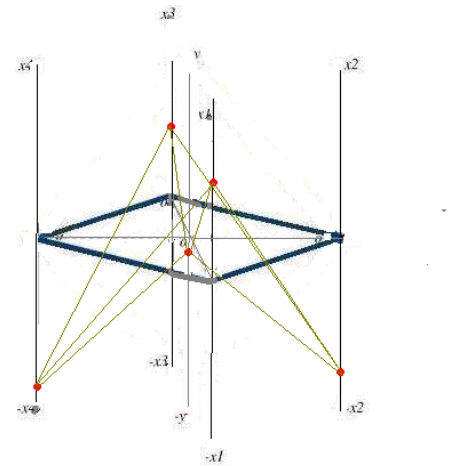
Level-1



Level-2



Level-3



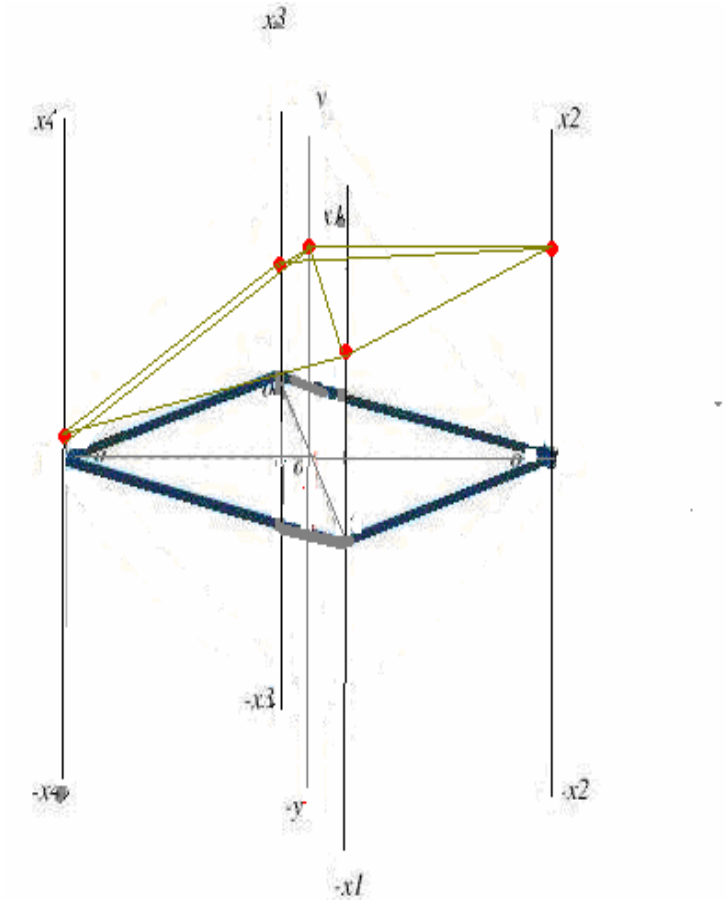
Level 1 or good performance: The GDP Kite is located in the positive quadrant
Level 2 or Irregular performance : The GDP Kite is located between the positive and negative quadrant
Level 3 or Poor performance: The GDP Kite is located in the negative quadrant or closed to 0

GDP-Kite 1989

- X1 = CONSUMPTION
- X2 = INVESTMENT
- X3 = GOVERNMENT
- X4 = NET TRADE
- Y = GDP

- GDP Kite Level:

  Level 1 or good performance

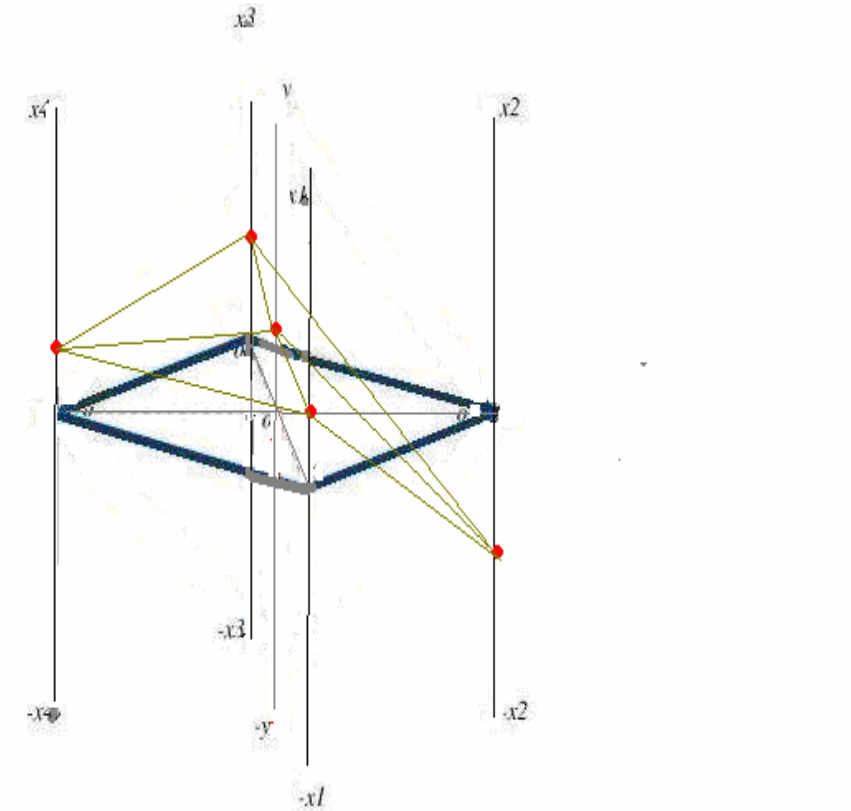


GDP-Kite 1990

- X1 = CONSUMPTION
- X2 = INVESTMENT
- X3 = GOVERNMENT
- X4 = NET TRADE
- Y = GDP

- GDP Kite Level:

  Level 2 or irregular performance



GDP-Kite 1991

- X1 = CONSUMPTION
- X2 = INVESTMENT
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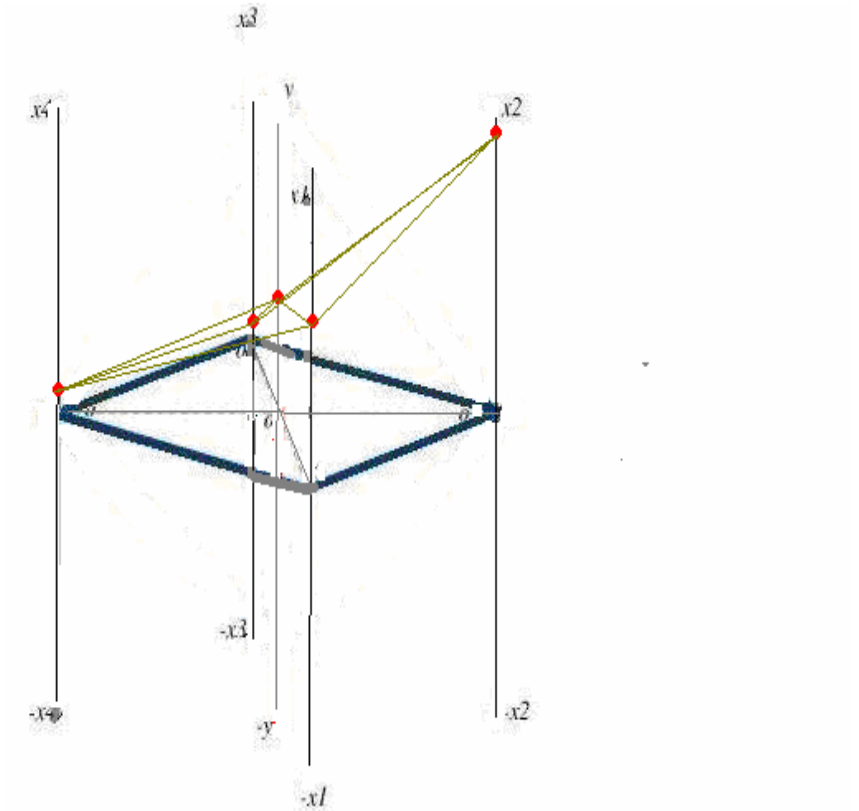
- Y = GDP

- GDP Kite Level:

  Level 1 or good performance



GDP-Kite 1992

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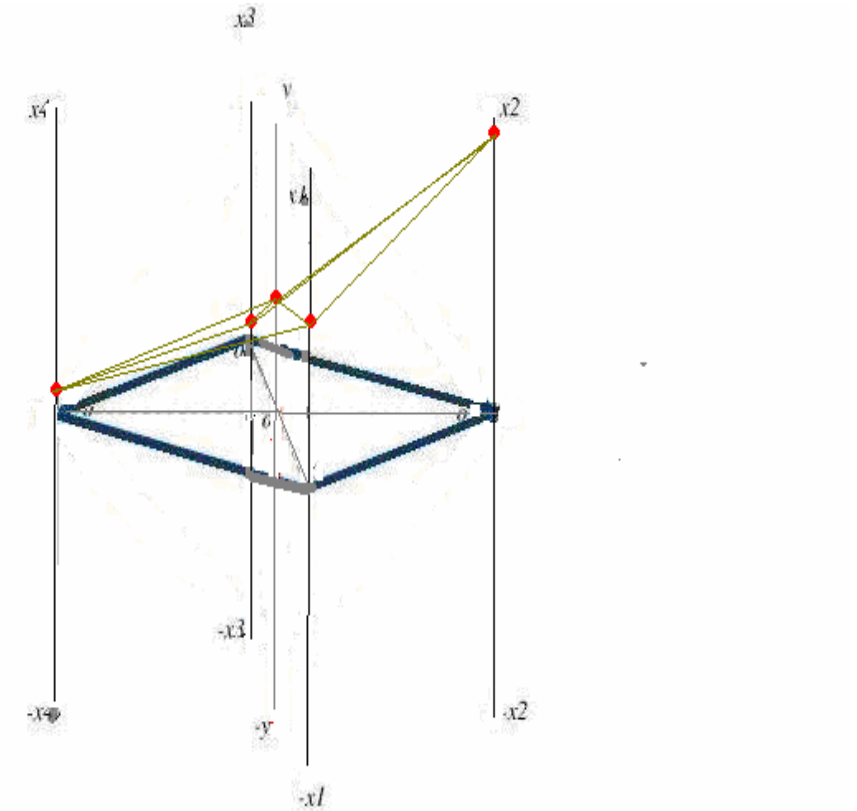
- GDP Kite Level:

  Level 1 or good performance

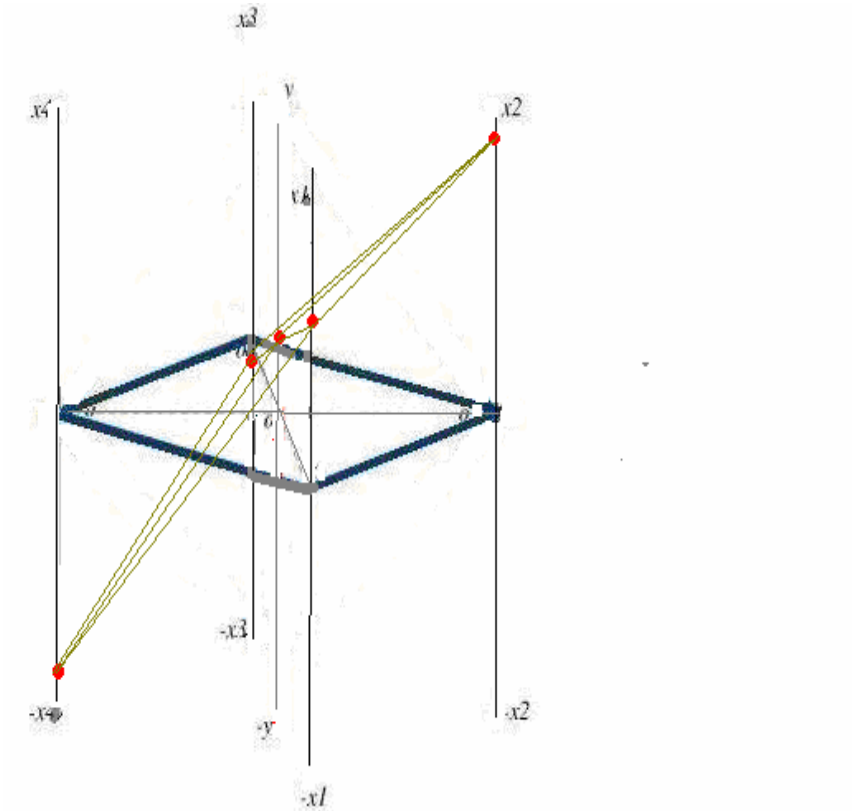


GDP-Kite 1993

- X1 = CONSUMPTION
- X2 = INVESTMENT
- X3 = GOVERNMENT
- X4 = NET TRADE
- Y = GDP

- GDP Kite Level:

  Level 2 or irregular performance



GDP-Kite 1994

- X1 = CONSUMPTION
- X2 = INVESTMENT
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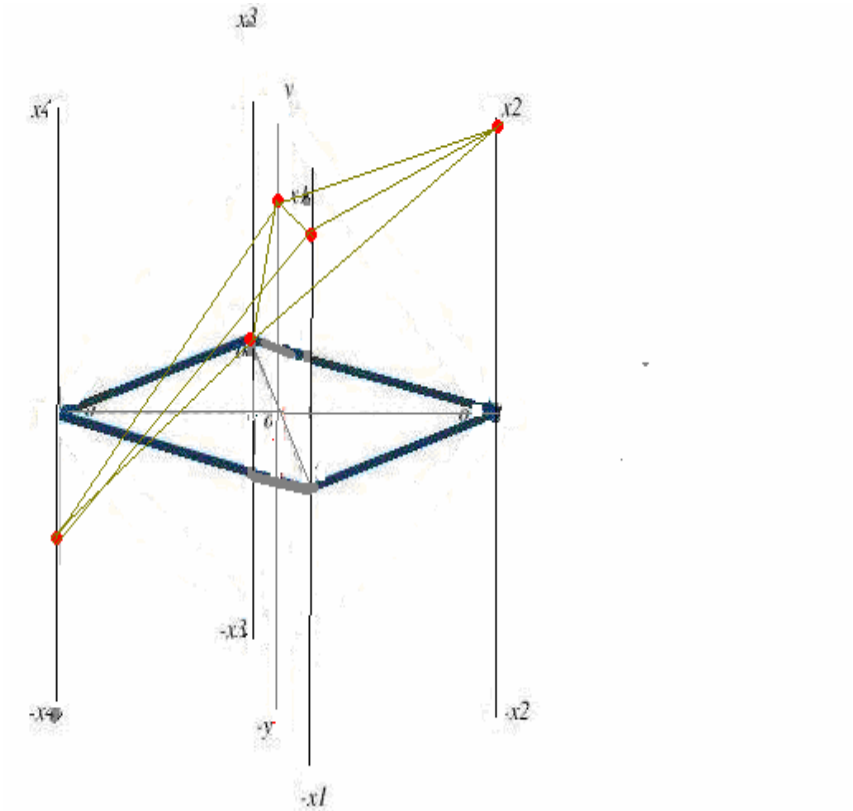
- X4 = NET TRADE
- Y = GDP

- GDP Kite Level:

  Level 2 or irregular performance

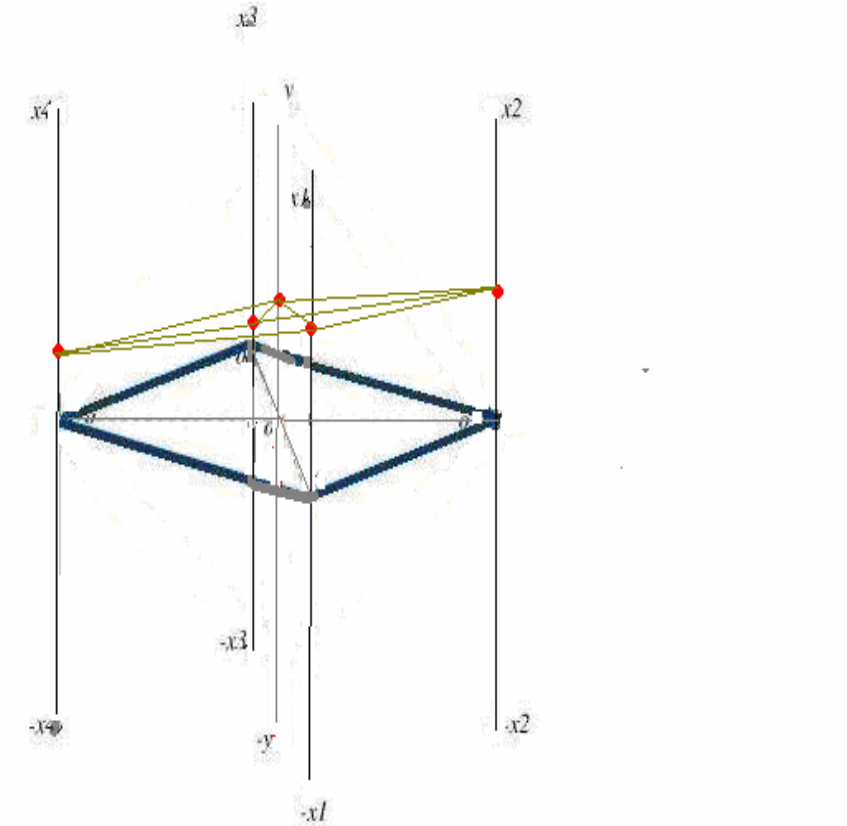


GDP-Kite 1995

- X1 = CONSUMPTION
- X2 = INVESTMENT
- X3 = GOVERNMENT
- X4 = NET TRADE
- Y = GDP

- GDP Kite Level:

Level 1 or good performance



GDP-Kite 1996

- X1 = CONSUMPTION
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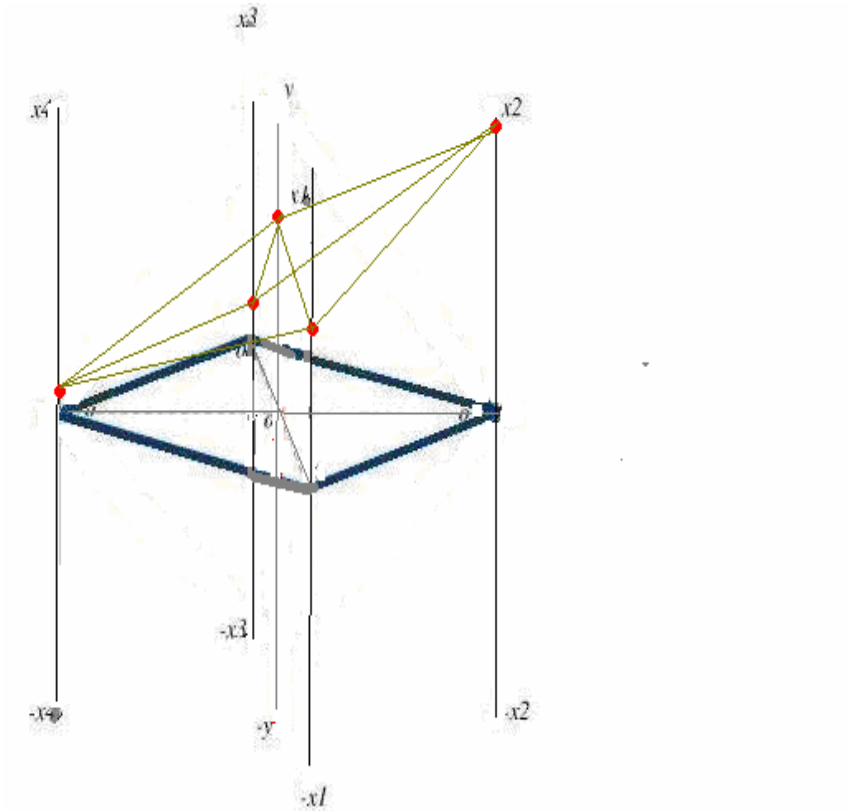
- X4 = NET TRADE
- Y = GDP

- GDP Kite Level:

  Level 1 or good performance

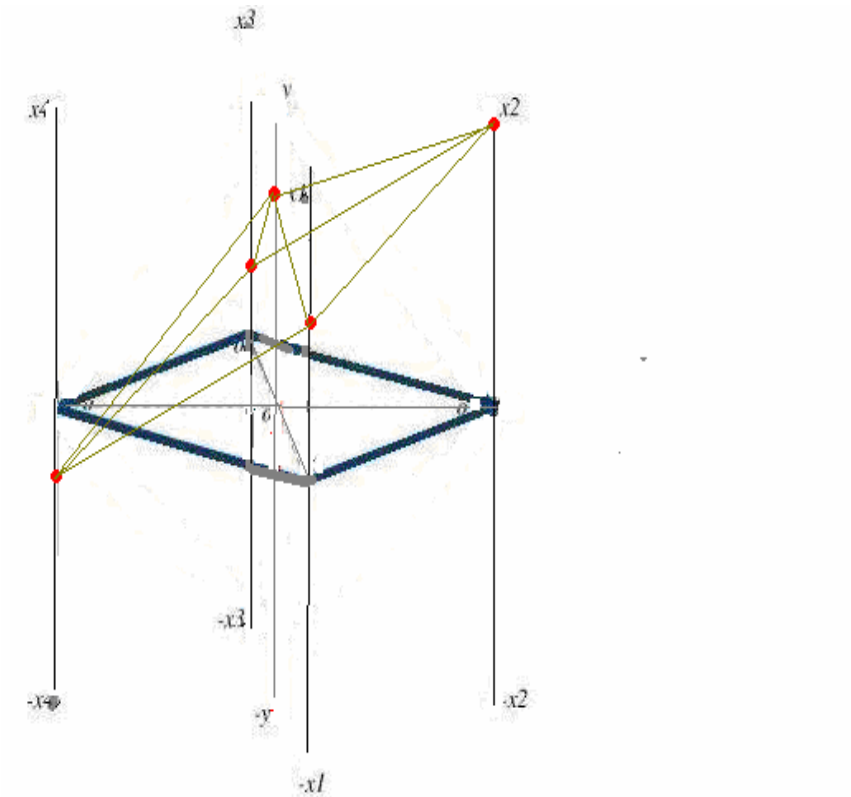


GDP-Kite 1997

- X1 = CONSUMPTION
- X2 = INVESTMENT
- X3 = GOVERNMENT
- X4 = NET TRADE
- Y = GDP

- GDP Kite Level:

  Level 2 or irregular performance

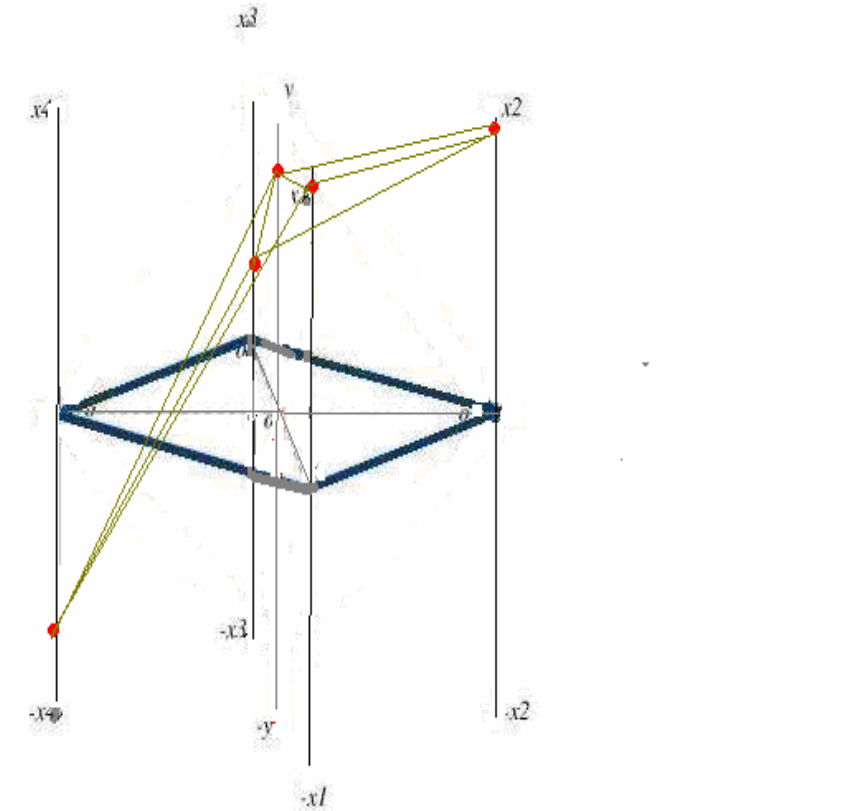


GDP-Kite 1998

- X1 = CONSUMPTION
- X2 = INVESTMENT
- X3 = GOVERNMENT
- X4 = NET TRADE
- Y = GDP

- GDP Kite Level:

  Level 2 or irregular performance



GDP-Kite 1999

- X1 = CONSUMPTION
- X2 = INVESTMENT
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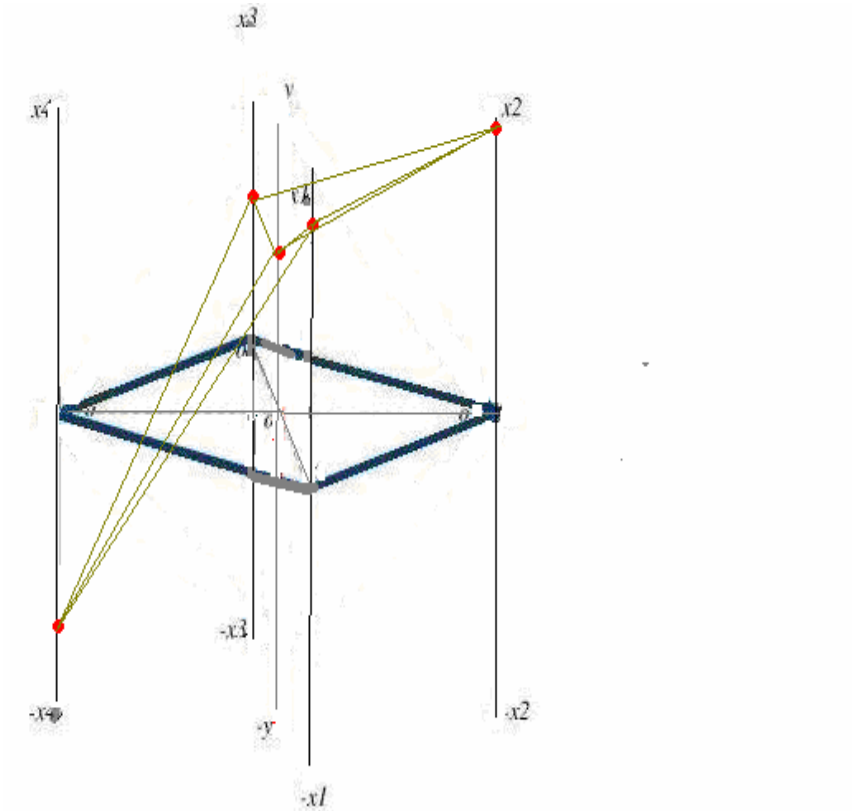
  Level 2 or irregular performance

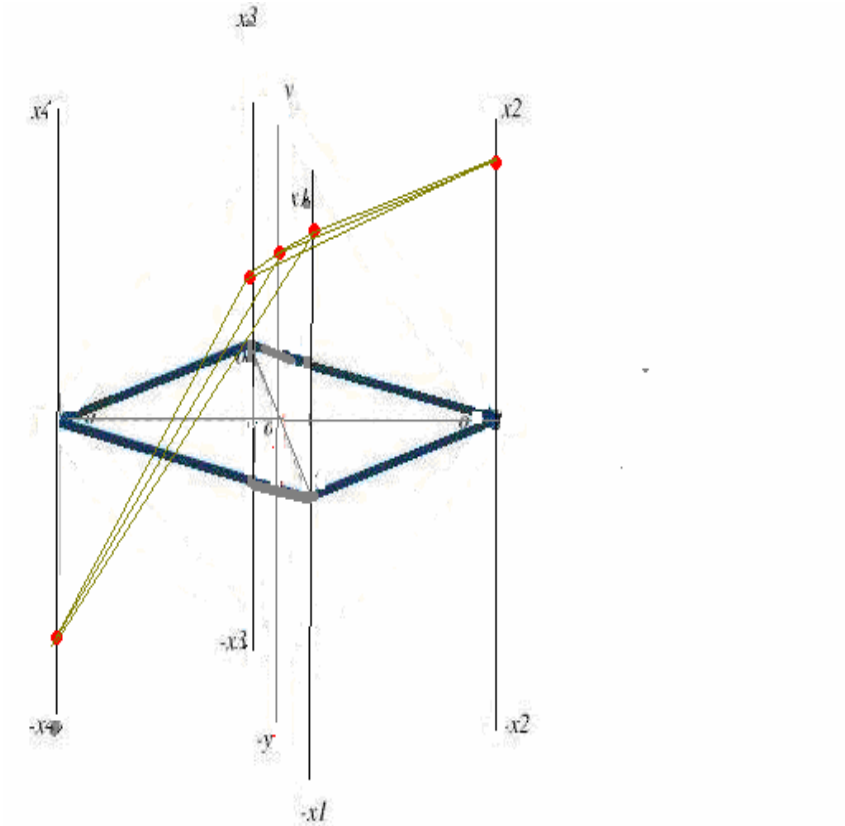


GDP-Kite 2000

- X1 = CONSUMPTION
- X2 = INVESTMENT
- X3 = GOVERNMENT
- X4 = NET TRADE
- Y = GDP

- GDP Kite Level:

Level 2 or irregular performance

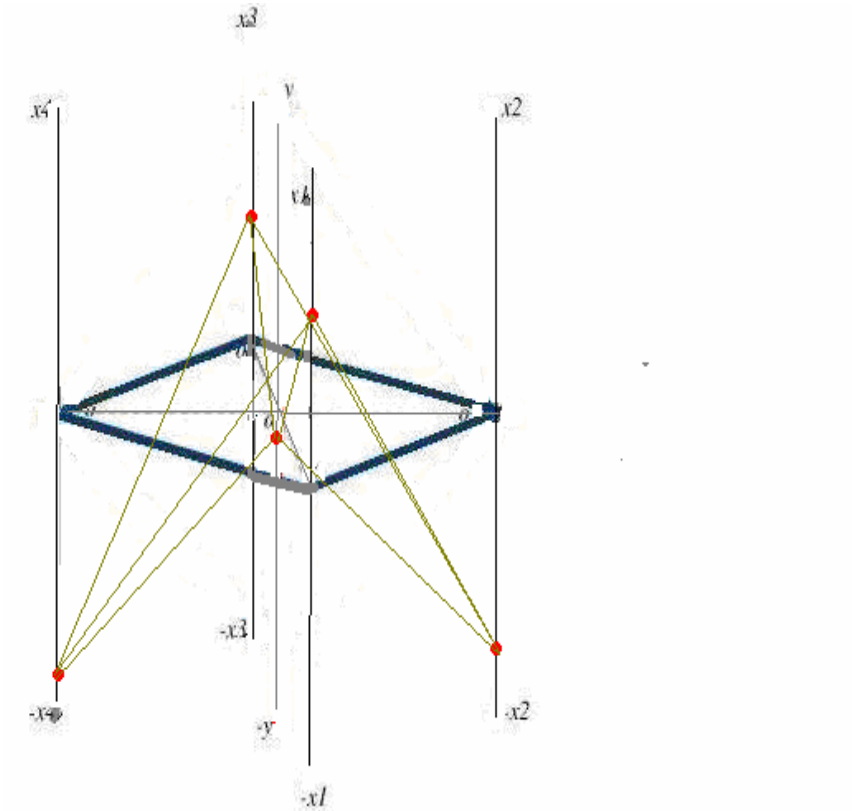


GDP-Kite 2001

- X1 = CONSUMPTION
- X2 = INVESTMENT
- X3 = GOVERNMENT
- X4 = NET TRADE
- Y = GDP

- GDP Kite Level:

  Level 3 or poor performance

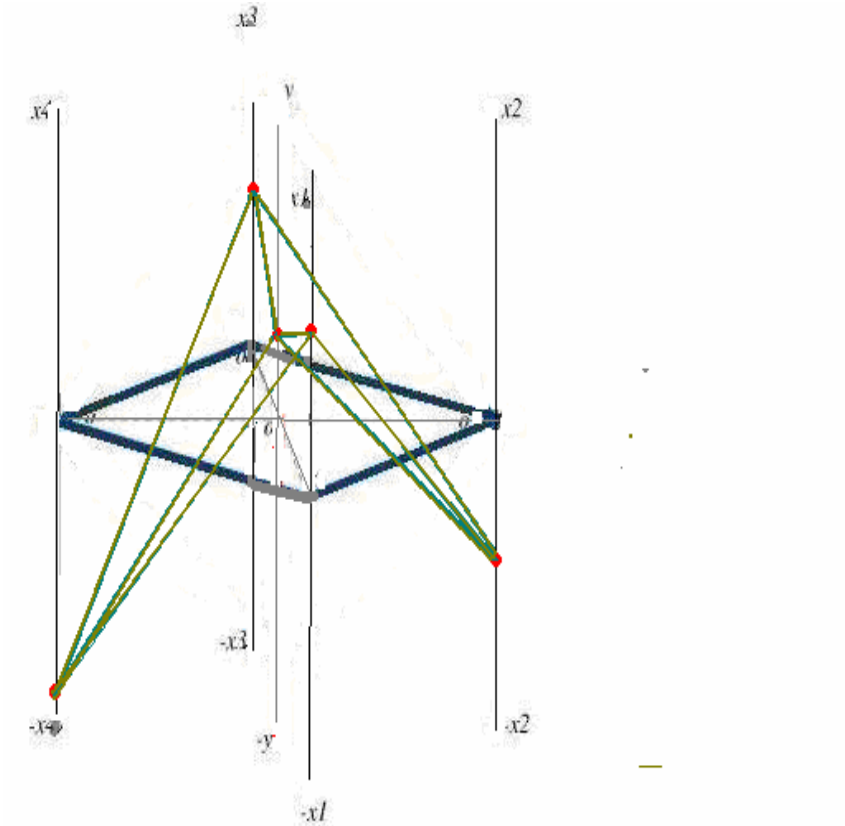


GDP-Kite 2002

- X1 = CONSUMPTION
- X2 = INVESTMENT
- X3 = GOVERNMENT
- X4 = NET TRADE
- Y = GDP

- GDP Kite Level:

  Level 2 or irregular performance

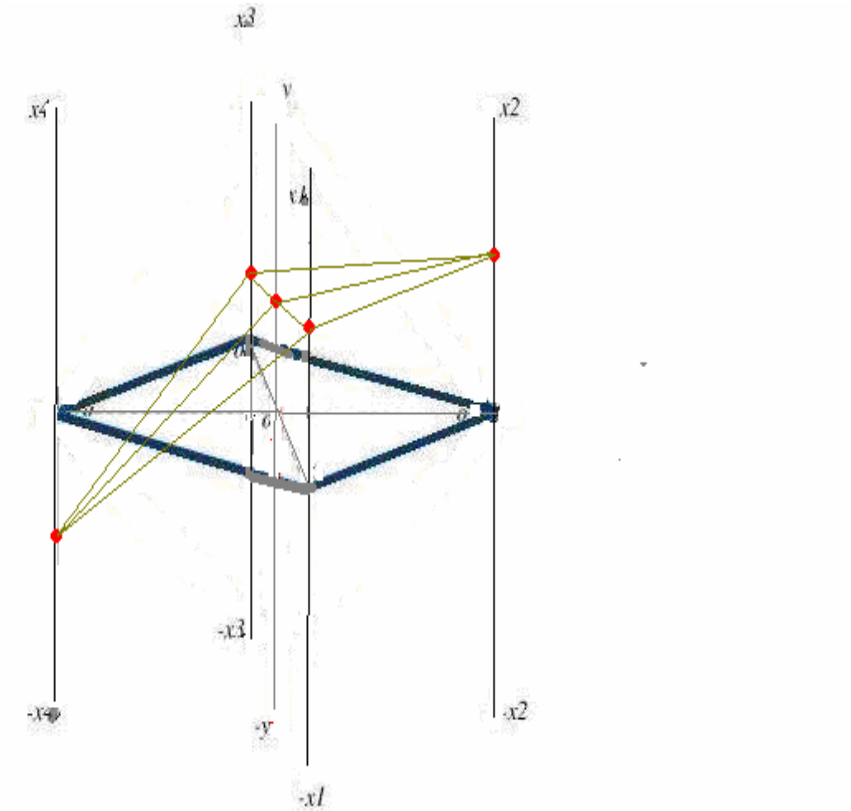


GDP-Kite 2003

- X1 = CONSUMPTION
- X2 = INVESTMENT
- X3 = GOVERNMENT
- X4 = NET TRADE
- Y = GDP

- GDP Kite Level:

  Level 2 or irregular performance

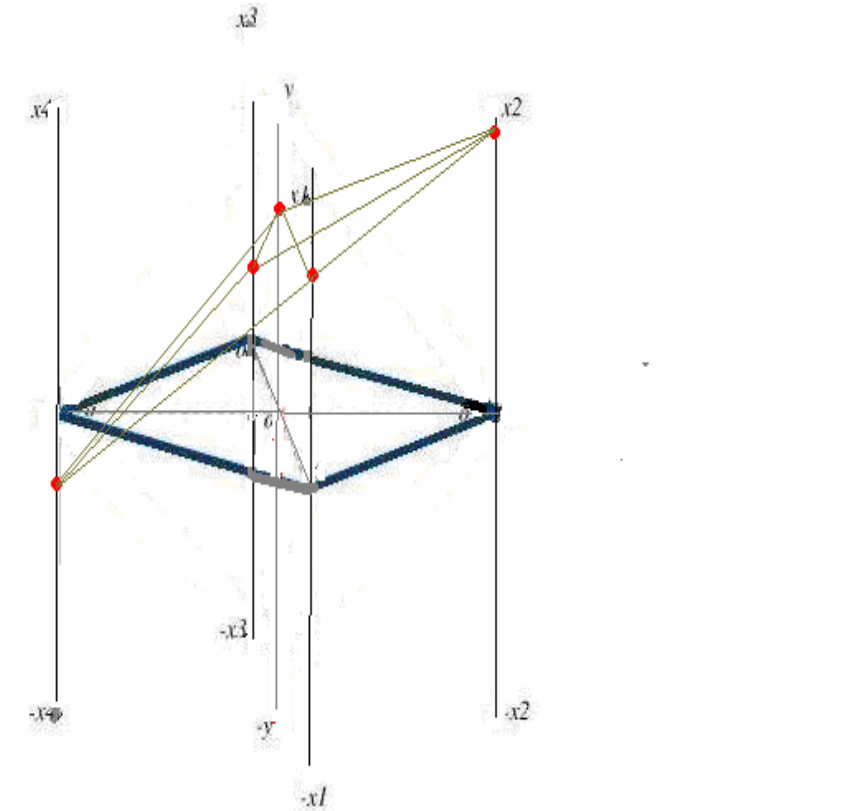


GDP-Kite 2004

- X1 = CONSUMPTION
- X2 = INVESTMENT
- X3 = GOVERNMENT
- X4 = NET TRADE
- Y = GDP

- GDP Kite Level:

  Level 2 or irregular performance



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