Strategy for Economic Growth in Brazil: a Post Keynesian Approach

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#### **Objective and hypothesis**

- The paper proposes a Keynesian strategy for economic policy that aims to achieve higher, stable and sustained economic growth in Brazil.
- Its main hypothesis is that the current poor growth performance of the Brazilian economy is due to macroeconomic and structural constraints rather than to the lack of microeconomic reforms.

#### Structure of the paper

- Keynesian economic policies: a brief view
- Constraints for economic growth in Brazil (stopgo pattern)
- Requirements for a sustained growth of the Brazilian economy (Harrod-Domar growth model to estimate warranted growth rate)
- Alternative economic policy model that intends to combine external and internal equilibrium (crawling peg exchange rate regime, marketbased capital controls, reduction of nominal interest rate etc). 3

# Definition of Keynesian economic policy

- Main objective is the achievement of full employment and sustained economic growth
- Macroeconomic stability rather than just price stabilization stability: reduction of the uncertainties that are intrinsic to the business world in order to stimulate firms to invest, to produce, and to employ.

# Constraints on economic growth I

Aggregate demand constraint: lack of effective demand, as volume of expenditure determines the aggregate demand of an economy.

Inflation constraint: symptom of a fight over the distribution of current income as the results of attempts of modify the existing distribution of money income among economic agents.

# Constraints on economic growth II

- Balance of trade constraint: Thirwall's law
  - A country cannot grow at a rate higher than what is consistent with its balance of trade equilibrium.
  - Structural deficits in developing countries are the result of low income-elasticity of products of smaller aggregate value exported vis-à-vis the greater incomeelasticity of products imported from developed countries.

# Constraints on economic growth III

*Capital account constraint*:

- a) arises when an economy is vulnerable to the changes in the liquidity conditions in the international financial market and/or changes in the mood of global investors.
- b) Currency crises can happen even when 'economic fundamentals' are in order.
- c) It is more common in countries with nondeveloped domestic financial market and fully open capital account.

### **Constraints for economic growth in Brazil I**

- a) *Inflation* has declined to moderate levels due to the exchange rate anchor adopted until January of 1999. After the flexibilization of exchange rate regime, inflation remains under control but at still high levels (1995-1998: 9.7%; 1999-2003: 8.9%);
- b) *Economic growth*: stop-go pattern and semistagnation trend (1995-2004: 2.4%) -> very high interest rate due inflation targeting regime plus high external vulnerability;
- c) *External vulnerability*: fully open capital account *plus* high level of external debt *plus* exchange rate volatility;

	General price index -	GDP growth - annual %	Investment rate (percentage of	Trade balance - US\$ million	Current account - US\$	Net public debt- over-GDP	Real average income - Sao	Formal unemployment
Year	domestic		GDP) at 1980		million		Paulo urban	rate* - Sao
	supply (IGP-		prices				region $(1985 = 100)$	Paulo urban
	וט						100)	region (%)
1991	496,71	1,03	14,62	10.580	(1.408)	38,1	58,5	6,7
1992	1167,17	-0,54	13,73	15.239	6.109	37,1	61,3	8,0
1993	2851,34	4,92	13,91	13.299	(676)	32,6	68,4	7,6
1994	908,01	5,85	15,02	10.467	(1.811)	30,0	65,9	7,8
1995	15,02	4,22	15,46	(3.466)	(18.384)	30,6	69,9	8,7
1996	9,22	2,66	15,24	(5.599)	(23.502)	33,3	71,5	9,2
1997	7,11	3,27	16,13	(6.753)	(30.452)	34,4	72,4	10,2
1998	1,84	0,13	16,06	(6.575)	(33.416)	41,7	71,5	10,8
1999	19,91	0,79	14,78	(1.199)	(25.335)	48,7	65,9	10,5
2000	9,52	4,36	14,79	(698)	(24.225)	48,8	62,3	10,0
2001	10,23	1,31	14,76	2.651	(23.215)	52,6	56,9	11,6
2002	27,66	1,93	13,88	13.121	(7.637)	55,5	51,6	11,4
2003	6,95	0,54	13,09	24.794	4.177	57,2	53,5	12,0
2004	11,87	5,18	13,8	33.693	11.669	51,8	52,3	10,0

 Table 1. Brasil - some macroeconomic data - 1991/2004

Source: IPEADATA

Note: (\*) Formal unemployment rate does not include informal unemployment

#### Figure 1. Basic interest rate (Selic rate, yearly)



#### Figure 2. Nominal exchange rate



## Requirements for the sustained growth of the Brazilian economy

We use a simple version of the Harrod-Domar growth model to calculate the potential growth rate of the Brazilian economy:

$$g = \frac{\dot{Y}}{Y} = \frac{s}{v} - \&$$

#### Where:

- *S* : saving/investment rate (as a ratio to real GDP).
- V: capital-output ratio.
- & : rate of depreciation of the capital stock.

### Estimates of the Parameters

For the Brazilian economy, we estimate of the values of the parameters of the Harrod-Domar growth equation:

- S: 19.26% (1991-2003 average)
- V: 3.16 (1989-2002 average)
- & : 3,5% (estimation based on US data)
- These values give an warranted or equilibrium growth rate of only 2.5 % per year.

### Warranted versus Natural Growth Rate

- We believe that the basic long-run problem of the Brazilian economy is a maladjustment between the warranted and natural growth rate.
  - Considering the growth rate of the labour force in 1.8% per year (1981-2003) and a productivity growth rate 2.6% per year (1950-1997), we get a *natural growth rate* of 4.4% per year (required for full employment of the labour force)

#### Warranted ...

In order to restore growth of the Brazilian economy at sustained and reasonable levels it is necessary to increase the warranted growth rate.

- This means that it is necessary a great increase in the rate of investment.
- According to our estimates (Harrod-Domar model), it is necessary to increase the investment rate of the Brazilian economy from 19% to more or less 26% of GDP.

– How to do this?

## How to increase the investment rate?

- We believe that is necessary a change in the economic policy model adopted in Brazil.
- This economic model was characterized by
  - (i) high nominal and real interest rates in order to achieve price stability;
  - (ii) growing liberalization of the capital account in order to integrate Brazil to international capital markets;
  - (iii) overvaluation of domestic currency;
  - (iv) since 1999 an increasing primary fiscal surplus generated mainly by the reduction of public investment – in order to stabilize public debt/GDP ratio.

## How to increase the investment rate?

- In order to achieve a higher investment rate, economic policy model must be changed.
- Nominal and real interest rates must be reduced for entrepreneurs increase private investment.
- Primary fiscal surplus must also be reduced to increase public investments.
- Real exchange rates must be kept at competitive levels in order to generate a sustained current account surplus.
- The challenge is to make these changes compatible with (i) price stability, and (ii) stabilization or reduction in the level of public debt.

### **Alternative policy**

- Adoption of a crawling-peg exchange rate regime in which devaluation rate of domestic currency was set by the Central Bank at a rate equal to the difference between a target inflation rate and the average inflation rate of Brazil's most important trade partners; that are United States, European Union, China, Japan and Argentina.
- Adoption of market-based capital controls in order to increase the autonomy of the Central Bank to set nominal interest rates according to domestic objectives and to avoid the likelihood of speculative attacks on the Brazilian currency.
- Reduction of nominal interest rate at a level compatible with a real interest rate of 6.0% per year.
- Reduction of primary fiscal surplus from current 4.5% of GDP to 3.0% of GDP on average for the period of 10 years. This reduction must be used to increase public investment in the same amount.

### **Alternative policy**

The required level of primary surplus is determined by government inter-temporal solvency condition. This condition determines the minimum level of primary surplus that is compatible with a constant public debt to GDP ratio. This condition is given by the following equation:

$$s = \left[\frac{r-g}{1+g}\right]b \qquad (7)$$

- Where: *s* is the primary surplus as a ratio to GDP, *r* is the level of real interest rate, *g* is the growth rate of real GDP, and *b* is the ratio of public debt to GDP.
- Under the conditions imposed by the current economic policy model, we have r = 0.11; g = 0.025; b = 0.53. So the minimum level of primary fiscal surplus must be 4.4% of GDP. However, a successful implementation of the alternative economic policy model may change the values of these parameters to: r = 0.06; g = 0.05; b = 0.53.
- In this case the minimum level of primary surplus can be reduced to 0.5 % of GDP.

#### **Alternative Model**

- So the reduction of primary surplus from actual 4.5% of GDP to 3.0% of GDP is not only compatible with the inter-temporal solvency condition, but also with a cumulative reduction of public debt as a ratio to GDP.
- Under the conditions supposed by the alternative economic policy model, the public debt as a ratio to GDP will be reduced to 32% of GDP in 2012, as we can see in Figure 11.

#### Figure 11 - Expected Dynamics of Public Debt as a Ratio to GDP in Brazil Under the Alternative Economic Policy Model



#### Conclusions

- This paper presented a Keynesian strategy of economic policy that aims to achieve higher, stable and sustained economic growth in Brazil. The basic features of this strategy are:
  - (i) adoption of a *crawling-peg exchange rate regime* in which devaluation rate of domestic currency was set by the Central Bank at a rate equal to the difference between a *target inflation rate* and *average inflation rate* of Brazil's most important trade partners;
  - (ii) adoption of *market-based capital controls* in order to increase the autonomy of the Central Bank to set nominal interest rates according to domestic objectives (mainly to promote a robust growth);
  - (iii) reduction of nominal interest rate to a level compatible with a real interest rate of 6.0% per year;
  - (iv) reduction of primary surplus from current 4.5% of GDP to 3.0% of GDP.
- These elements are fundamental for the required increase in the investment rate of Brazilian economy from current 20% of GDP to 27% of GDP needed for a sustained growth of 5% per year.