

Stage Processes from Young-Developing to Robust-Developing by Country in the Endogenous-Equilibrium

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1. Introduction

This paper examines and summarizes different transition processes from young-developing to robust-developing and, further to developed stages, by country. Poor countries are not included in this research because KEWT series have not enough data-sets by country for Africa area. This paper also does not step into the developed stage by country, which is separately discussed under the title of the size of government and/or fiscal policy. The author least cites the literature in this paper and cultivates two methods to clarify the transition of the economic stages. The author will wholly discuss ‘development economics’ and compares it with the literature in a separate paper when KEWT data-sets could arrange for the data-sets for many African countries.

There are two problems for the characteristics of the economic stages: 1) the characteristic common to a country at an economic stage and 2) the characteristic peculiar to each stage. The common characteristic is the endogenous structure of the balance of payments and deficit. Firstly, the endogenous structure of the balance of payments differs from the structure of the balance of payments in the literature since the literature treats it from the viewpoint of the financial assets-side while the author’s from the real-assets side. Conclusively, if the endogenous structure overruns a moderate range of

the endogenous-equilibrium or becomes extremely unbalanced, any country cannot maintain a sustainable rate of technological progress. Secondly, the peculiar characteristic varies by economic stage. This paper treats sixteen cases of the transition processes at the young-developing stage beginning in 1990. Some countries grow steadily and get into the next stage while others back and forth for the last twenty years. There may be peculiar reasons, partly due to strong personality of national taste/preferences, culture, and history by country.

My questions: Why do some young-developing countries conquer their difficulties and get into the next stage while others stay at the same stage up and down for many years? Do young-developing countries have their own peculiar difficulties at each economic stage, compared with developed countries? Behind these questions, there exists human philosophy. The higher the wave rays the more calm an economy is. The earth is the place where we human and people live together peacefully with other living animals and vegetation. Strong personality by country may or may not fight against high wave rays of human itself.

The original actual statistics data are obtained from *International Financial Statistics Yearbook*, IMF. The author selects sixteen young-developing countries in Asia, Latin America, and Near East; Turkey, Ukraine, Kazakhstan, Pakistan, Bangladesh, Indonesia, Philippines, Sri Lanka, Vietnam, Mexico, Argentina, Bolivia, Chile, Columbia, Paraguay, and Peru.

Before starting, the author wholly sketches the endogenous model and system in this section. This sketch is also necessary for setting up two methods to observe and examine the above different characteristics. Two methods are *six* organic aspects and *five* pattern-settings. The background of the two methods will be gradually clarified by sketching the endogenous model and system.

The endogenous system connects theory with its practice and integrates into a system as one simultaneous unity. The endogenous model starts with Solow's

(1956) model but, definitely replaces exogenous by endogenous and endogenously measures the rate of technological progress. The endogenous model always holds in the endogenous-equilibrium. The rate of technological progress and all others are each expressed by two ways: (1) at convergence in the transitional path and (2) at the data-sets by year as the unity of theory and practice, where (1) and (2) are consistent by year and over years. The rate of technological progress, the growth rates of capital, the rate of return endogenously, and other parameters and variables are all simultaneously measured using a ‘discrete’ Cobb-Douglas production function that involves *seven* endogenous parameters.

The literature, without exception, distinguishes a model with its actual data used for the model: ‘Estimated parameter’ is distinguished with ‘calculated variable,’ under the use of actual ‘panel’ data. ‘Forecasting’ shows a result of variables after independent variables were inserted into the model. ‘Ad hoc’ is never general and means ‘once for all’ or ‘for specific purpose or situation at hand.’ Independent variables constitute causes and dependent variables constitute results under various functions. Each model is separated so that an integration of all possible models is impossible, in particular when optional actual data are used independently of the model.

The endogenous system, contrarily, reverses the above concepts and definitions completely. This system does not distinguish estimate with measure since the system measures all the data after converting actual data to endogenous data. Measurement is most strict to the extreme and, differs from the concepts of estimate, calculate, and forecast. With measurement, nevertheless, resultant ad hoc holds by item, year, country, and sector. Never repeating again over years, but always consistently with each other, just like or similarly to the cases of actual data in this world. Forecast may be expressed as a case when actual data are replaced by a forecasted actual data. Due to one

theory and practice unity, causes and results simultaneously occur by year. Policy-oriented causes are only expressed by seven endogenous parameters and accordingly eight policy determinants by year. Results are all endogenously expressed by parameters and variables by year. Strategies and tactics are all absorbed into seven endogenous policy-oriented parameters.

Let the author now connect the endogenous model and system with six organic aspects and five pattern-settings: The endogenous policy-oriented organic system (hereafter, the endogenous system) is based on the 'discrete' Cobb-Douglas production function in the endogenous-equilibrium, where seven endogenous parameters are first measured using endogenous equations and corresponding hyperbolic equations. The endogenous-equilibrium is measured by endogenous speed years by country and sector. The financial and market assets are supplemental and indirectly involved in the real assets of the endogenous system, due to the neutrality of the financial and market assets to the real endogenous assets by year. The endogenous system is wholly and broadly examined by *six* organic aspects by country. If the levels of six organic aspects are all well balanced, a country as an economic organ maintains robust sustainable equilibrium. Six organic aspects, however, are difficult to take out one by one.

To solve this problem at six organic aspects, the author introduces two new devices; (1) 'eight policy determinants' to directly *control* seven endogenous parameters and (2) 'five pattern-settings' to *examine* six organic aspects. Eight policy determinants are overlapped with seven endogenous parameters and six organic aspects and most fitted for five pattern-settings, free from sticky explanations of endogenous and hyperbolic equations.

Finally, let the author numerically explain the background behind the above (1) six organic aspects and (2) five pattern-settings, using **Figure 1**. On the LHS of Figure 1 shows factor causes and results as illustrated by the

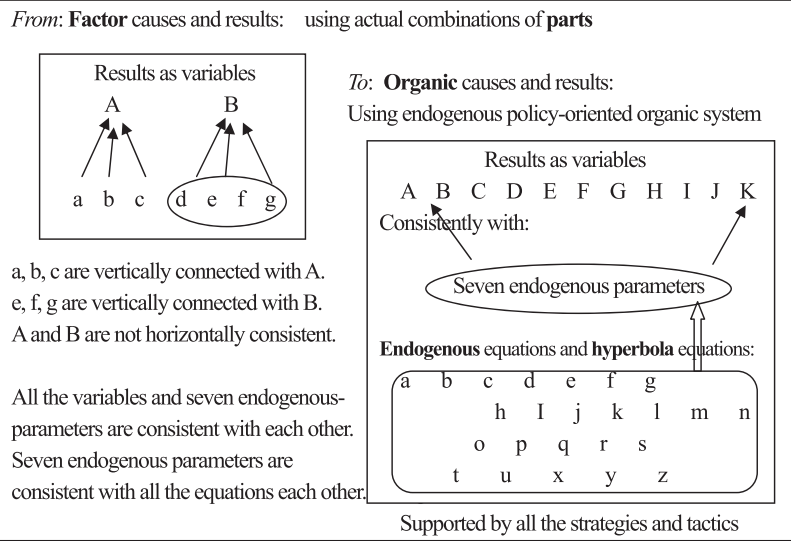


Figure 1 A shift of paradigm of causes and results: vertical versus wholly

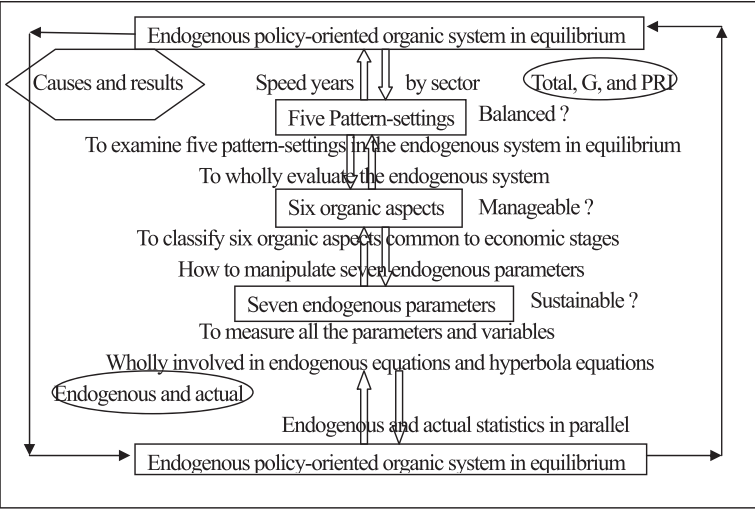


Figure 2 Endogenous parameters, organic aspects, and pattern-settings in the endogenous system

economic/econometrics function, where independent and dependent variables are separated. The data used are actual statistics and any others. The RHD of Figure 1 shows organic causes and results as illustrated by the endogenous model and system. The data used are some statistics but converted to endogenous data as a whole system, starting with simultaneous measurements of capital and the rate of return. For an organic system, some devices are needed. This is shown by **Figure 2**. In this paper, based on seven endogenous parameters, six organic aspects are derived, as each formulated in Appendix. Five pattern-settings are devised for six organic aspects. The contents of seven endogenous parameters, eight policy determinants, and six organic aspects are each as follows:

Seven endogenous parameters are: the relative share of capital α ; the growth rate of population n ; the ratio of net investment to output $i = I / Y$; the qualitative net investment coefficient β^* ; the diminishing returns to capital (DRC) coefficient δ_0 ; the capital-output ratio Ω ; and, the ratio of government net investment to government output $i_G = I_G / Y_G$.

Eight policy determinants: (1) the balance of payments and debt, (2) endogenous taxes, (3) marginal rate of substitution, (4) marginal productivities of labor and capital, (5) the elasticity of substitution, (6) the relative share of capital, (7) the speed years for convergence, and (8) the capital-output ratio.

Six organic aspects: *Eight* policy determinants, for simplicity, become a surrogate for six organic aspects. For equations interrelated in six organic aspects, see Appendix.

Five pattern-settings are: (1) the balance of payments and deficit, (2) the relative share of capital, (3) possibility of full-employment, (4) the real cost of capital, and (5) the endogenous valuation ratio to wholly evaluate the endogenous-system equilibrium (see Figure 1).

Sixteen countries have each its own policies and policy-changes by year. The

results examined by five pattern-settings considerably differ by country. Each country maintains endogenous equilibrium by reducing inevitable unbalances between seven endogenous parameters. Seven endogenous parameters measures the level of endogenous equilibrium but, differently. This is because each country has its own national taste/preferences, culture, and technology, even in the global economies. Diversification and Globalization do not endogenously contradict and cooperate with each other. Some countries still cannot get rid of difficulties; such as Pakistan, staying at the same economic stage. A country cannot always grow fast and needs its own vision far ahead, partly due to the possibility of excessive unbalances in seven endogenous parameters. Extreme unbalances of the total economy are further aggravated by the unbalances between the government and private sectors. Unbalanced relationships between the government and private sectors are a key for conquering and controlling difficulty at any economic stage.

2. How to classify six organic aspects to conquer difficulty at an economic stage

There are six organic aspects for any country to conquer difficulty by economic stage (poor, young-developing, developing, and developed). A young-developing country cannot easily get into a stable developing stage. Why does this occur? It implies that six organic aspects are too burden at young-developing stages. The characteristics at the beginning are low *GDP* per capita, low education, and considerably less jobs, with insufficient infrastructures.

In the endogenous system by country, the policies and policy-changes are all absorbed into seven endogenous parameters that digest rival factors, labor and capital. Strategies and tactics all absorb non-rival factors such as education, R & D, and learning by doing and are wholly filtered into policies and policy-changes measured by seven endogenous parameters. Then, how to control

endogenous parameters? Seven endogenous parameters (results) are controlled by changing eight policy determinants (causes). Endogenous ‘causes and results’ circulate at the real assets and, the cause-determinants are eight policy determinants. For example, the rate of unemployment and some level of inflation are results of the real assets in equilibrium. Infrastructures are expressed by seven endogenous parameters using flow and stock of capital in equilibrium by sector (the total economy, and the government and private sectors).

Endogenous equilibrium is a surrogate of the price-equilibrium that balances macro demand and supply and, measured by the speed years for convergence in the transitional path by country and year. The price-equilibrium has fostered the literature for the last three Centuries. Nevertheless, it has two critical defects: (1) it is not always measured consistently within a whole system of an economy and (2) it cannot consistently measure cases of disequilibrium. In other words, the price-equilibrium is measured only after settling disequilibrium, where disequilibrium recovers simultaneously (with government cash flow-out by deficit). Disequilibrium does not actually. Even national bankruptcy holds at a close-to-disequilibrium and, before hitting actual disequilibrium. For example, countries had fallen into bankruptcies, as IMF tried to help recovering Argentina, Malaysia, and Korea.

Eight policy determinants are explained using equations step by step as follows: (1) The balance of payments and deficit each to endogenous income Y , $bop = BOP / Y$ and $\Delta d = \Delta D / Y$; (2) endogenous taxes that determine the size of government, $tax = Y_G / Y = T_{AX} / Y$; (3) the marginal rate of substitution, $MRS = r / w$, where ‘ r ’ is the rate of return and ‘ w ’ is the wage rate each in equilibrium; (4) the marginal productivity of labor, $MPL = w$, and the marginal productivity of capital, $MPK = r$, under the relative price level $p = 1.0$; (5) so

called σ ¹⁾ as an endogenous surrogate for the wage index in statistics; (6) the (endogenous) relative share of capital $\alpha = \Pi / Y$, where Π is endogenous returns.

Then, (7) the speed years for convergence, $1/\lambda^*$, $\lambda^* = (1 - \alpha)n + (1 - \delta_0)g_A^*$, where $n = n_E$ is the rate of change in population in equilibrium; δ_0 ²⁾ is the diminishing returns to capital (DRC) coefficient; $g_A^* = i(1 - \beta^*)$ is the rate of technological progress; $i = I/Y$ is the ratio of net investment to output/income; and $1 - \beta^*$ is the qualitative net investment coefficient. All of these are not assumed but measured in equilibrium consistently over years in the endogenous system; and finally (8) the capital-output ratio, $\Omega = \Omega_0 = \Omega^*$, where the above δ_0 and β^* are involved. As a result, seven endogenous parameters are measured and controlled in equilibrium.

At the above (8), the literature does not use the capital-output ratio, $\Omega = K/Y$, but the capital-labor ratio, $k = K/L$. The author here stresses two fundamental reasons why the literature does not use the capital-output ratio in the Cobb-Douglas production function. Two fundamental reasons: (1) Capital and the rate of return must be measured, at the same time as Robinson, Joan (1959) claimed, and by sector and, (2) returns by sector are difficult to measure in the case of a system of national accounts (SNA). Statistics today, including IMF, OECD, and Penn World Table (PWT 6.2), do not measure and publish

1) The σ is similar to the literature and defined as $\sigma = \frac{-\Delta k / k}{\Delta(r/w)/(r/w)}$.

In the discrete Cobb-Douglas production function, it is calculated as $\sigma =$

$$\sigma = \frac{-\Delta k / \left(\frac{k_0 + k_1}{2}\right)}{\Delta(r/w) / \left(\frac{r_0 + r_1}{2} / \frac{w_0 + w_1}{2}\right)}. \text{ The } \sigma \text{ fluctuates at the data-sets by sector and by year and}$$

shows that the flexibility is guaranteed. In the corresponding recursive programming, $\sigma = 1.00$ is proved by year at the transitional path.

2) $\delta_0 = 1 + \text{LN}(\Omega^*) / \text{LN}((1 - \beta^*) / \beta^*)$, where $\Omega_0 = \Omega^*$ is the capital-output ratio. The speed years terminates at convergence in the transitional path.

neither capital stock nor the capital-labor ratio. Japan Government Office, the Bureau of Economic Analysis of Dept. of Commerce, the US, and several other countries publish capital at national accounts statistics. However, capital is estimated externally either using the perpetual inventory method at the total economy or the cost of capital market data at the corporate sector.

Capital and the rate of return are only measured with all the other parameters and variables at the same time. The processes to measure parameters and variables endogenously are involved in eight policy determinants. Endogenously, capital K is measured by flow and stock relationship of net investment after reducing capital consumption. The rate of return r is measured, starting with actual GDP and national disposable income (NDI) and using $tax = Y_G / Y = T_{AX} / Y$ and $i_G = I_G / Y_G$ stated above; with $MRS = r / w$,³⁾ Ω , $r = \alpha / \Omega$, and $w = r / (r / w)$.

A country at any economic stage requires fulfilling six organic aspects. Causes and results do not hold independently each by each but, wholly and simultaneously at six organic aspects. As a result, any country enjoys maintaining endogenous equilibrium sustainably over years. A defect of six organic aspects exists not theoretically but by empirically. Six organic aspects should not uniformly classify young-developing countries and satisfy with arranging alphabetically these countries. These arrangements are a starting point and require whole implications through six organic aspects, with eight policy determinants.

3) The marginal rate of substitution $MRS = r / w$ is obtained by using (1) national taste,

$\frac{rho}{r} = 13.301c^2 - 22.608c + 10.566$, where the propensity to consume $c = C / Y$, (2) $\alpha = 1 - \frac{c}{rho / r}$, and (3) $(r / w) = \frac{\alpha / (1 - \alpha)}{K / L}$.

3. Secret of success for solving problems common to young-developing countries

This section, for simplicity, uses eight policy determinants possibly as a surrogate for the classifications of countries based on six organic aspects. How can a young-developing country successfully enter into a robust developing stage without staying back and forth at the young-developing stage? Policy-makers' patient struggling at the young-developing stage may be similar to that at the developed stage. First of all, the balance of payments *BOP* and deficit ΔD stir up the situation. Policy-makers' aim is to maintain moderate endogenous equilibrium but, a moderate balance of payments and a deficit may be a prerequisite to some extent. Under equilibrium, there is no difference lying between the price-equilibrium and endogenous equilibrium. The author stresses that a moderate level of the balance of payments and deficit is a result at an endogenous equilibrium. Policy-makers' philosophy and perception of national taste and technology finally influence the level of *bop* and Δd . If philosophy and perception by country are widened to the earth preservation in the long run, the corresponding organic aspects may be robust and conquer various difficulties by strong leadership. Young-developing stage countries must quickly prepare for sudden risks ahead, with much room for balanced organic aspects.

What policy determinant is most sensitive to endogenous equilibrium at young-developing stage? This is the ratio of net investment to output/income. First, if a young-developing country could stably get net investment for many years, the country is able to proceed to the next stage. Nevertheless, the actual world differs. A reason is that a high level of net investments over years causes an unbalanced net investment between the government (G) private (PRI) sectors. What causes net investment unbalanced between government and private?

Government investment may be actually processed at the PRI sector yet, pros group-oriented opinion becomes much stronger than cons, often apart from right judgments and sacrificing the PRI sector.

The author advocates here that if policy-makers knew the size of government endogenously, the results differ and, the country makes the most of resources and taste/preferences with the corresponding technology. An economy grows gradually just like a baby as an organ with its reserve power. Sustainable economy needs to be balanced by year. Many countries today, after 1997–98 financial crises, have tried to guard against outside short money, with increased savings. This is learning by doing, though against free mobility of capital as a stream.

What result must policy-makers accept when the size of government is beyond its limit? The country must lose its reserve power and the speed years will be unstably longer. A typical case is Japan's speed years, 2007 and 2009 under increasing deficits: The speed years were 313.12 at the total economy, 68.09 at the G sector, and –17.07 at the PRI sector in 2007 while 495.24, 5.04, and –101.19 in 2009 respectively. The total economy still maintains equilibrium in 2009 but, the G and PRI sectors are already out of equilibrium. Huge deficit by year is one of results. It implies that Japan lost its reserve power due to the increase in deficits and debts over years. A young-developing country cannot raise actual taxes so that the difference between actual and endogenous taxes must be smaller than that of developing and developed countries. The young-developing country cannot eat too much.

Under these circumstances, young-developing countries have often suffered from high inflation. The rate of inflation is usually watched by Consumers Price Index (*CPI*). The literature assumes that the rate of inflation is externally given. Six organic aspects, differently from common sense, have the rate of inflation endogenously measured. This clarifies that higher inflation is

inevitable when an economy grows at a higher rate. If a young-developing country suffers from high inflation under a low growth, it means that policy-makers cannot find a sustainable combination of policies and endogenous parameters or that the corresponding six organic aspects become more wholly unbalanced. This is true even if deficit is not so much a burden. Policy-makers look for real-assets causes and pursue balanced aspects by year, improving a combination of seven endogenous parameters. Principal causes are traced back to the abnormal values of DRC coefficient $\delta_0(\Omega, \beta^*)$ and the current capital-output ratio Ω_0 .

The capital-output ratio spreads itself into six organic aspects along with the transition of the economic stage. At a young-developing stage country, the capital-output ratio is considerably low; e.g., less than 0.5 and/or less than 1.0. If δ_0 and β^* are unbalanced with such low levels of the capital-output ratio, the combination of seven endogenous parameters are unbalanced. To improve seven endogenous parameters, policy-makers need to control eight policy determinants and widely execute fulfilling strategies and tactics by year. Along with the improvement in seven endogenous parameters, the speed years will enter a moderate range of equilibrium.

For strategies, a young-developing country consecutively executes higher education in the long run and increase employment. As a result of higher education with think of others, the quality of jobs will be higher gradually by year. Earlier economists such as Adam Smith started with full employment and today, the rate of unemployment is inevitable in the literature, as shown by huge researches related the non-accelerating-inflation rate of unemployment (NAIRU). The author stresses that the ‘endogenous’ NAIRU is involved in six organic aspects, where a low unemployment with a low inflation is within hands. It is true that when seven endogenous parameters are well controlled using policy determinants, full employment and low inflation are attained, as

shown empirically using the data-sets of 65 countries at KEWT 5.11 by sector.

The relationship between the rate of return and the rate of u -, full-, and over-employment is theoretically proved by using the rate of return hyperbola equation, $r(n, \alpha, i, \beta^*)$. The upper limit of endogenous inflation is shown by its horizontal asymptote (HA) and full employment is shown as a case that the actual growth rate of population equals the endogenous rate of change in population in equilibrium, $n = n_E$. The upper limit of the capital-output ratio distresses developed countries and is shown by the horizontal asymptote (HA) of $\Omega(n, \alpha, i, \beta^*)$.

Finally, the author summarizes this section by stressing the use of an equation of $\alpha = \Omega \cdot r$. This is a core of seven endogenous equations and respective hyperbola equations. This equation influences commonly to all of economic stages and most severely to the young-developing stage. Young-developing stage countries each have a low relative share of capital α , which demands a soft balance between the capital-output ratio Ω and the rate of return r . Some developing countries show a high level of α , but Ω and r are not backed to steadily guard the low α . For a balanced maintenance of $\alpha = \Omega \cdot r$, $\Omega(n, \alpha, i, \beta^*)$ need to cooperate with $r(n, \alpha, i, \beta^*)$ (for each equation, see Appendix). A bad interruption is bubbles of flow (uncontrollable inflation) or stock (irresponsible asset bubble). Six organic aspects fuse eight policy determinants, the upper limit of inflation, and the endogenous valuation ratio, $v^* = V^* / K$. Seven endogenous parameters must have a room for reserve power to control each other: not to grow too high but to be balanced.

4. Five pattern-settings to examine balanced levels by country

This section is a highlight of this paper. The author selects sixteen countries in this paper: Turkey, Ukraine, Kazakhstan, Pakistan, Bangladesh, Indonesia, Philippines, Sri Lanka, Vietnam, Mexico, Argentina, Bolivia, Chile, Columbia,

Paraguay, and Peru. This paper does not include African and Near East countries, partly due to widely-ranged qualitative differences of data disclosed at *International Financial Statistics Yearbook*, IMF. To the author's understanding, peaceful world economies are guaranteed by stop-inequality. Stop-inequality has two aspects: macro and micro, where all the strategies and tactics unite the policies measured by seven endogenous parameters. Is stop-inequality a cause or a result at the real assets? If endogenous parameters remain controllable using eight policy determinants involved in six organic aspects, stop-inequality spreads over causes and results. Six organic aspects are endowed with stop-inequality. The speed years are endowed with endogenous equilibrium. In the long run, there is no contradiction between the speed years and stop-inequality yet, in the short run there is some contradiction. This is because excessive policy to stop-inequality decreases steady growth for the future. This kind of contradiction is also adapted to a case of excessive deficit. Contradiction is finally mitigated by balanced sense.

This section examines and evaluates results of each country by using five pattern-settings. Young-developing stage countries are examined by using five pattern-settings characterizes the contents of this paper. Five pattern-settings are: (1) The balance of payments and deficit; (2) The relative share of capital; (3) The relationship between the growth rate of population and the rate of change in population in equilibrium; (4) The real cost of capital; and (5) The valuation ratio as a whole evaluator of seven endogenous parameters and eight policy determinants. Each country has conquered its own unbalanced situations by year. Therefore, each of five pattern-settings differently reveals unbalanced determinants. Five pattern-settings are conclusively shown by **Figures 3, 4, and 5**.

The author examine sixteen countries, using the 1st pattern-setting to $bop = \Delta d + (S_{PRI} - I_{PRI})$, where $bop = BOP / Y$ is the balance of payments to

2009	The capital-output ratio					2009	(SPRI-IPRI)/Y as BOP less deficit					
alpha	0 to 0.99	1.0 to 1.49	1.5 to 1.99	2.0 to 2.5		bop=BOP/Y	0.05 to -0.099	0 to -0.049	0 to 0.049	0.05 to 0.099		
0 to 0.099	Bangladesh	Sri Lanka				-0.05 to -0.099	Paraguay		Pakistan			Kazakhstan
0.10 to 0.149	Turkey	Ukraine	Mexico						Sri Lanka			
	Pakistan	Peru				0 to -0.049		Turkey	Indonesia			
	Paraguay							Ukraine	Mexico			
0.15 to 0.249			Bolivia	Vietnam		0 to 0.049			Bangladesh			
			Chile			0.05 to 0.099				Bolivia		Argentina
			Columbia							Chile		
0.25 to 0.4		Kazakhstan								Columbia		
		Indonesia								Peru		
		Philippines				above 0.10						Philippines
		Argentina										Vietnam
2009	Endogenous Phelps coefficient, $x=\alpha/(\beta\beta^*)$					2009	Diminishing returns to capital coefficient, $\delta\alpha_0$					
r	0 to 0.99	1.0 to 1.99	2.0 to 2.99	above 3.0		Speed years	below -0.5	0 to -0.49	0 to 0.399	0.4 to 0.699		above 0.7
0 to 0.099	Sri Lanka	Bangladesh				0 to 4.99	Bolivia					
	Vietnam	Mexico				5.0 to 9.99	Pakistan					
		Chile				10 to 19.9		Turkey	Vietnam			
0.10 to 0.149		Columbia	Ukraine			20 to 29.9		Sri Lanka	Ukraine	Kazakhstan		
		Paraguay							Chile	Indonesia		
		Peru							Mexico	Columbia		
0.15 to 0.249		Kazakhstan	Pakistan	Turkey		above 30				Argentina		Bangladesh
		Indonesia	Argentina	Philippines						Peru		Philippines
0.25 to 0.4			Bolivia									Paraguay

Data source: KEWT 5.11–5 by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF. KEWT 5.11–5 Data-source of Tables A2–3 and A3–3 is each the same.

Figure 3 Characteristics of younger-stage of 16 countries, 2009

1990	The capital-output ratio					1990	(SPRI-IPRI)/Y as BOP less deficit					
alpha	0 to 0.99	1.0 to 1.49	1.5 to 1.99	2.0 to 2.5		bop=BOP/Y	-0.05 to -0.099	0 to -0.049	0 to 0.049	0.05 to 0.099	above 0.10	
0 to 0.099	Kazakhstan		Turkey			-0.05 to -0.099	Bangladesh	Kazakhstan				
	Phil., Peru						Vietnam	Philippines				
0.10 to 0.149	Pakistan	Mexico						Sri Lanka				
	Bangladesh							Mexico				
	Sri Lanka					0 to -0.049	Paraguay	Turkey	Pakistan	Peru		
	Argentina							Indonesia	Bolivia			
	Bolivia, Colum.							Chile				
0.15 to 0.249	Chile					0 to 0.049			Argentina	Ukraine		
	Paraguay								Columbia			
0.25 to 0.4	Indonesia			Ukraine		0.05 to 0.099						
	Vietnam					above 0.10						
1990	Endogenous Phelps coefficient, $x=\alpha/(\beta\beta^*)$					1990	Diminishing returns to capital coefficient, $\delta\alpha_0$					
r	0 to 0.99	1.0 to 1.99	2.0 to 2.99	above 3.0		Speed years	below -0.5	0 to -0.49	0 to 0.399	0.4 to 0.699	above 0.7	
0 to 0.099	Turkey	Ukraine				0 to 4.99	Chile					
0.10 to 0.149		Kazakhstan	Argentina			5.0 to 9.99	Argentina					
		Philippines					Columbia	Indonesia				
0.15 to 0.249			Mexico	Pakistan				Philippines, Sri Lanka				
				Bangladesh				Paraguay, Peru				
0.25 to 0.4		Chile	Indonesia	Sri Lanka		10 to 19.9			Kazakhstan			
				Vietnam					Vietnam			
				Bolivia, Colum.		20 to 29.9			Bangladesh	Turkey		
				Paraguay, Peru		above 30		Pakistan	Ukraine	Mexico	Bolivia	

Figure 4 Characteristics of younger-stage of 16 countries, 1990

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2000	The capital-output ratio					2000	(SPRI-IPRI)/Y as BOP less deficit				
alpha	0 to 0.99	1.0 to 1.49	1.5 to 1.99	2.0 to 2.5		bop=BOP/Y	0.05 to -0.099	0 to -0.049	0 to 0.049	0.05 to 0.099	above 0.10
0 to 0.099						-0.05 to -0.099	Bolivia	Sri Lanka			
0.10 to 0.149	Turkey	Bangladesh	Ukraine				Paraguay	Mexico			
	Kazakhstan	Sri Lanka	Argentina			0 to -0.049		Turkey	Pakistan		
	Pakistan	Chile						Bangladesh	Columbia		
	Mexico	Columbia						Vietnam	Peru		
	Bolivia	Paraguay						Argentina			
	Peru							Chile			
0.15 to 0.249		Philippines	Vietnam			0 to 0.049			Ukraine	Indonesia	
0.25 to 0.4		Indonesia				0.05 to 0.099				Kazakhstan	Philippines
						above 0.10					
2000	Endogenous Phelps coefficient, $x=\alpha/(\text{r}\beta)^*$					2000	Diminishing returns to capital coefficient, $\text{delta}\alpha$				
r	0 to 0.99	1.0 to 1.99	2.0 to 2.99	above 3.0		Speed years	below -0.5	0 to -0.49	0 to 0.399	0.4 to 0.699	above 0.7
0 to 0.099	Sri Lanka	Ukraine				0 to 4.99					
	Argentina	Chile				5.0 to 9.99	Pakistan	Turkey			
0.10 to 0.149		Bangladesh	Pakistan				Bolivia				
		Vietnam	Paraguay			10 to 19.9			Sri Lanka	Vietnam	
		Mexico	Peru			20 to 29.9		Ukraine	Kazakhstan		
		Columbia							Argentina		
0.15 to 0.249			Philippines	Kazakhstan		above 30				Chile	Bangladesh
				Bolivia							Indonesia
0.25 to 0.4			Indonesia	Turkey							Philippines
											Mexico, Columbia
											Paraguay, Peru

Figure 5 Characteristics of younger-stage of 16 countries, 2000

Notes for Figures 1, 2, and 3:

1. For the last twenty years, each country has taken a different transition, where some countries have taken a more stable path than others.
2. Some countries start with a new step to accept the SNA, where rapid irregular trends disappear within a few years but these results are interesting to know how some ratios are settled at the first step. For example, the capital-output ratio is extremely low and the rate of return is extremely high under different level of the relative share of capital, each in endogenous-equilibrium.
3. Two countries, Ukraine and Kazakhstan, start with 1993 and 1995. These data are exceptionally shown in 1990 data of Figure 2. When data are exceptionally out of each table, these data are input at the corner of top left or bottom right.
4. Policy-makers by country have its own philosophy and decisions to harmonize national taste/preferences with corresponding technological progress. Yet, some of real-assets policies may be wrong, resulting in back and forth trends. Most importantly, actual data should be closer to endogenous data by sector; a stable or fluctuating level of net investment over years determines the differences by country.

Data source: KEWT 5.11–5 by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF. Figures 3, 4, and 5 are based on the same KEWT 5.11–5.

For each data by item, see tables by country and area (weighted averaged) in Appendix at the end.

output/income Y , $\Delta d = \Delta D / Y$ is deficit to Y , and $(S_{PRI} - I_{PRI})$ is the difference between saving and net investment at the private (PRI) sector. The data-sets of KEWT 5.11, 1990–2009 by sector is used for this pattern-setting. The above pattern-setting examines twenty year tendency of bop , Δd , and $(S_{PRI} - I_{PRI})$, by giving ‘plus and minus signs’ to three of bop , Δd , and $(S_{PRI} - I_{PRI})$, just like +, +, + or +, −, +. For this pattern-setting, the author simultaneously takes into consideration the smoothness of the speed years. Note that Pattern, +, +, +, is not always sustainable, partly due to the decrease in domestic net investment. There are four patterns and each corresponding countries are as follows:

1. Pattern Balanced: +, −, +, or −, +, + balanced and robust.
2. Pattern Temporal: +, +, +, or, +, +, −, or −, −, +, with strong individuality.
3. Pattern Difficult: +, −, −, or −, −, −, sometimes close-to-disequilibrium.
4. Pattern the Lowermost: −, −, −, often falling into disequilibrium.

Pattern Balanced: Argentina, Colombia, Paraguay, and Peru.

Pattern Temporal: Bangladesh, Indonesia, Philippines, Sri Lanka, Vietnam, Bolivia, and Chile.

Pattern Difficult: Turkey, Ukraine, Kazakhstan, and Mexico.

Pattern the Lowermost: Pakistan.

Let the author similarly examine sixteen countries, using the 2nd pattern-setting to different levels of the relative share of capital at $\alpha = \Omega \cdot r$, and following the data-sets of KEWT 5.11, 1990–2009 by sector. Each of sixteen countries has its own characteristics in six organic aspects. The above pattern-setting examines sixteen countries by twenty year transition of unbalanced growth and stop-inequality. For this pattern-setting, the author simultaneously takes into consideration the sign of DRC coefficient, δ_0 , for the last ten years. There are four patterns originally defined and corresponding countries are as follows:

5. Pattern Smooth: $0.15 < \alpha < 0.25$, balanced and smooth.
6. Pattern Irregular: $0.05 < \alpha < 0.125$ or $0.30 < \alpha < 0.50$, with strong individuality.
7. Pattern Difficult: α unstable and fluctuating, sometimes close-to-disequilibrium.
8. Pattern the Lowermost: α most unbalanced, often falling into disequilibrium.
Pattern Smooth: Bangladesh, Indonesia, Philippines, Sri Lanka, Vietnam, Chile, Colombia, Paraguay, and Peru.
Pattern Irregular: Ukraine, Mexico, and Argentina.
Pattern Difficult: Turkey, Kazakhstan, and Bolivia.
Pattern the Lowermost: Pakistan.

The above results are interpreted wholly: Young-developing stage countries have each national taste/preferences even in the global economies in the world today. Each country has different policies for the last twenty years yet, for the last ten years, many countries have adjusted their policies much more than expected, particularly at Asian and Latin American countries. Most countries show minus balance of payments yet, this minus is within a range and contributes to each country's growth in the long run. Each country has its own strategy for coping with a minus balance of payments and also a minus deficit within some ranges. What does urge each country to have its own policy? This is endogenous equilibrium. Each country does not actually measure endogenous equilibrium but, each country manipulates policies towards equilibrium. As a result, a moderate range of endogenous equilibrium is maintained but, its approach differs by country. No country takes same policies or strategies. This fact is proved by confirming various variables and endogenous parameters—not only through the review of seven endogenous parameters but also through hundred related parameters. A certain level of growth is not obtained by the

guidelines in the textbooks. This is an implication of the above two pattern classifications.

In general, most countries are divided into two patterns; low versus high relative share of capital. Then, does a country with a low relative share of capital sacrifice stop-inequality? Or, does a country with a high relative share of capital a country sacrifice stop-inequality? The author denies both. Each country executes each preferable policy or has to do so under people's votes and elections. Then, why must a country take a policy of high relative share of capital despite a fact that the higher the relative share of capital the more distribution to capital is anticipated? The interpretation is: a young organic economy must be balanced as much as possible but, factors and resources have more restrictions so that unbalanced conditions result in a high relative share of capital. Each country's people historically know the responsibility for each own rights and duties, after long failures and experiences. When each country survives with less help from others, the world economies become more stable and peaceful. Each country becomes 'think of others' and cooperates with each other. This is a good point of globalization. Globalization cooperates with national taste/preferences and culture. In fact, each country never have has the same pattern. It is difficult for policy-makers to examine and confine each country into a certain pattern.

Let the author examine sixteen countries, using the 3rd pattern-setting to different levels of the unemployment at the total economy by $n_E - n$, similarly to the above two pattern-settings. Theoretically, there is no unemployment in equilibrium at any economic stage. And this fact encourages policy-makers to approach full-employment. There are three patterns defined, by year during 1990–2009, and each corresponding countries are as follows:

9. Pattern Robust: $n_E - n = 0$ by year, balanced and smooth.

10. Pattern Usual: $n_E - n \neq 0$, a few times in earlier 1990s and 2009, sometimes close-to-disequilibrium.

11. Pattern Difficult: $n_E - n \neq 0$ repeated, often falling into disequilibrium.

Pattern Robust: None.

Pattern Difficult: Turkey, Ukraine, Bangladesh, Indonesia, Sri Lanka, Vietnam, Mexico, Argentina, Chile, Colombia, Paraguay, and Peru.

Pattern Difficult: Kazakhstan, Pakistan, Philippines, and Bolivia.

All the countries enjoy full-employment in equilibrium, except for the above four countries. Unemployment occurs only in 2009 and/or one or two times during the 1990–93. Even the above four countries enjoy full-employment except for Pakistan. Pakistan must find balanced six organic aspects so that national taste and culture could accept without resistance, with steady education and FDI.

Let the author examine sixteen countries, using the 4th pattern-setting to plus/minus different levels of the real cost of capital (= the rate of return less the growth rate) by sector using $CC_{REAL(G)}^*$ and $CC_{REAL(PRI)}^*$. For this pattern-setting, the author simultaneously takes into consideration ‘a plus real cost of capital at the total economy.’ For information, the author does not deny the market rate in the long-term and proves that ten year debt yield at the market is equal to the rate of return in equilibrium by country. Theoretically, plus signed high cost of capital is preferable to minus signed one. This is because (1) when the rate of return is higher than the growth rate of output, net investment is encouraged and, (2) when deficit rise up beyond a certain range the cost of capital turns to minus first at the G sector. There are four patterns defined and each corresponding countries are as follows:

12. Pattern Smooth: plus $CC_{REAL(G)}^*$ and $CC_{REAL(PRI)}^*$, balanced and smooth.

13. Pattern Private-oriented: minus $CC_{REAL(G)}^*$ but plus $CC_{REAL(PRI)}^*$, with strong individuality.

14. Pattern Government-oriented: minus $CC_{REAL(G)}^*$ and $CC_{REAL(PRI)}^*$, sometimes close-to-disequilibrium.
15. Pattern the Lowermost: negatively fluctuating $CC_{REAL(G)}^*$ and $CC_{REAL(PRI)}^*$, often falling into disequilibrium.

Pattern Smooth: Bolivia, Chile, Colombia, Paraguay, and Peru (though each, after 2000).

Pattern Private-oriented: Turkey, Pakistan, Bangladesh, Indonesia, Philippines, Mexico, and Argentina,

Pattern Government-oriented: Ukraine, Kazakhstan, Sri Lanka, and Vietnam.

Pattern the Lowermost: None.

Pattern Smooth is occupied by Latin American countries. Pattern Private-oriented is occupied by Asian countries. Each case has its own series of histories and experiments in the past. Private-oriented implies that government helps develop the private sector and it has its identity. Government-oriented implies that government must lead an economy when it is young. This is justified by the fact that without leading infrastructure the economy cannot grow under the world competitions. Government-oriented, however, often falls into a minus cost of capital due to minus government rate of return, with less technology-oriented compared with private-oriented. This direction is allowed when domestic saving is high as shown in most Asian countries after 1997–98 crisis. Note that the private sector works actually even under government-oriented. Government-oriented is endogenously related to the size of government. Therefore, government-oriented never lasts as a sustainable policy.

Both private- and government-oriented must be flexible so as to shift to private-oriented when an economy gets into a developed stage. The author raises a serious fact in this respect: group-oriented political powers would not accept this right timely shift at the transit of economic stages, as democratic Japan has

experienced for the last twenty years.

Let the author finally examine sixteen countries, using the 5th pattern-setting to the valuation ratio, $v^* = V^* / K$. The valuation ratio is endogenous and indicates all the policies should prevent from bubbles ahead. Exogenous inflation shown by *CPI* follows later than bubbles. Bubbles interrupt a steady growth and stop-inequality path, as many countries have experienced. There are four patterns defined and each corresponding countries are as follows:

16. Pattern Smooth: $1.0 < v^* < 2.75$ (except for early 1990s), balanced and smooth.
17. Pattern Avoid: $v^* < 1.0$ or $v^* > 4.0$, with steady change in policies.
18. Pattern Policy-Warning: minus v^* included, towards urgent change in policies.
19. Pattern the Lowermost: no value of v^* , revolutionary revival required.

Pattern Smooth: Turkey, Kazakhstan, Indonesia, Philippines, Argentina (after 2002), Bolivia, Paraguay, and Peru.

Pattern Avoid: Pakistan, Bangladesh, and Mexico.

Pattern Policy-Warning: Ukraine, Sri Lanka, Vietnam, Chile, and Colombia.

Pattern the Lowermost: None.

The above countries have obtained how to guard against instant-oriented funds in respective past experiences. The mobility of capital among countries is principally acceptable but, only in the long-term. The market principle should be moderate. Recall that bubbles bring about huge profits at the sacrifice of financial institutions, which must be finally rescued by deficit by country.

Five pattern-settings by aspect are as explained above, with three sets of figures. The author finds that Pakistan has encountered most difficult times

during the last twenty years. Why do Pakistan policy-makers not find moderate combinations of real-assets policies for equilibrium? The author comments on the case of Pakistan by reviewing each of seven endogenous parameters. Apparently, each value of seven endogenous parameters are not so much exceptional except for the DRC coefficient, δ_0 . Pakistan's δ_0 has shown a minus value by year continuously. Years of a plus value of δ_0 are exceptionally 1990, 1999, 2002, and 2008, yet these values are 1.5926, 1.3866, 1.5175, 1.1940, each abnormally high. What are the causes of abnormal levels of δ_0 ? Two reasons are: (1) The qualitative net investment coefficient is less than 0.5, which implies that $B^* = (1 - \beta^*) / \beta^*$ is above 1.0. (2) The capital-output ratio is less than 1.0.

For these two reasons, the value of δ_0 has been abnormal. Nevertheless, Pakistan's G sector is normal, where low $B^* = (1 - \beta^*) / \beta^*$ is low and the capital-output ratio is high, resulting in normal δ_0 by year. Then, what does this mean? A serious problem stays at the PRI sector. The balance of the G sector and the PRI sector is extreme abnormal. Pakistan policy-makers lost their way how to recover the abnormality at the PRI sector. It is apparently possible for policy-makers to operate the G sector. But, actually this operation is far beyond a limit of the G sector in the case of Pakistan. The G sector and the PRI sector are closely related and cannot overrun a certain level of unbalance between the two sectors. And further, fundamental causes are traced back to minus high levels of the balance of payments and deficit. In this respect, Pakistan's case teaches us a warning against the unbalance between the two sectors. A young organic economy teaches us this fact.

In short, peculiar characteristics of the transition processes to robust-developing are policy-oriented in the endogenous-equilibrium and expressed by dynamic balances between government and private sector. This fact is naturally connected with common characteristics as discussed at section 3. It implies that

it is difficult for countries at young-developing stage to clearly distinguish common with peculiar characteristics.

5. Conclusions

This research answers: why do some young-developing countries conquer their difficulties and get into the next stage while others stay at the same stage up and down for many years? Countries at the young-developing stage each have strong personality of national taste/preferences, culture, and history by country. Nevertheless, the strong personality is not the reason why some countries cannot get into the next robust-stage. Examinations using five pattern-settings, based on eight policy determinants prepared for the research in this paper, clarify that peculiar characteristics of the young-developing stage are reduced to unbalanced results between government and private sectors. This is because it is difficult for young countries to flexibly adjust various priorities to short- and long-term policies, compared with the case of robust-developing countries. This fact may be a peculiarity of the young-developing stage.

For example, the young-developing stage needs a consecutive high level of net investment. The relationship between infrastructure and enterprise net investment is subtle. Nevertheless, the economic circumstances change quickly and sharply. Net investment and its distribution to government and private sectors must be long-sighted and yet, sometimes must accept unbalanced periods even in a case that financial support is consecutively and stably maintained. When real-assets policies do not match financial-assets policies, speed years become unstable, falling into close-to-disequilibrium. Most of young countries, 1990–2009, have severely experienced close-to-disequilibrium for the last twenty years.

On the other hand, common characteristics of the young-developing stage countries are based on the endogenous structure of the balance of payments. If

a country is unstable in maintaining the endogenous balance of payments, the country economy becomes unstable and cannot get into the next stage. A true fact of the endogenous balance of payments is not a high plus level but a stable plus or minus level. A stable plus or minus level of the balance of payments makes the rate of technological progress stable more than a high plus level of the balance of payments makes.

Nevertheless, the young-developing stage countries often fall into a fluctuating level of the balance of payments and accordingly, sharp changes in net investment. The fluctuating level of the balance of payments ultimately comes from unbalanced activities between government and private sector net investment. Sharp changes in net investment are peculiar to the young-developing stage so that these results constitute peculiar characteristics of the young-developing stage. When a country could ride over peculiar characteristics, the country gets into robust-developing country.

Behind peculiar characteristics, there still exists the endogenous structure of the balance of payments overlapping. In other words, a consecutive stability of net investment is never guaranteed. Once a country falls into difficulty, the tide changes at once and adversely, where the market is much severe, compared with the case of robust-developing stage. Net investment is guaranteed by dynamic policies, fast and flexible, but it is difficult for the young-developing stage countries to execute fast and flexible policies at the real assets. In this sense, conclusively, peculiar and common characteristics are tightly related in particular at the young-developing stage.

When the world economies are stuck after bubbles, waste deficits, and weaken sustainable growth in the long run, they cry that much money supply is required. Nevertheless, any country cannot fasten international money within the country once the country changed to the worse by losing its attractiveness to investors. Excessive money returns back to central banks. Therefore, ample

helicopter money supply in the world is non-sense in the long run. This is the viewpoint of the real-assets. The author calls it the neutrality of the financial assets to the real assets (see, *Int Adv Econ Res* 16: 282–296, 2010).

It implies that an economy cannot survive alone and selfishly. We need cooperation, not fighting but for others, returning back to human original thought and philosophy, based on the real assets at the SNA.

Figures 1 to 5 conclusively show methods and devices used in this paper and with policy determinants and pattern-settings.

Sixteen young-developing countries have conquered differently each difficulty taken over from 1990 to 2009. However, it does not mean that each country naturally steps into the next stage. The author hopes that examinations by five pattern-settings, as stressed in this paper, will help suggest how to shift difficulty to steady growth and stop-inequality, cerebrated by balanced spirit. Eight policy determinants clearly have young-developing countries driven towards balanced, back and forth, as shown by country.

Appendix Six organic aspects in endogenous equilibrium by country and sector

Aspect 1 shows a base for endogenous situation from the viewpoint of costs of capital

Aspect 1 endogenously measures the rate of return and cost of capital (as the rate of return less the growth rate); for nominal = real + inflation in equilibrium.

Nine items: The horizontal asymptote of $r^*(i)$, $HA_{r^*(i)}$; The endogenous inflation rate, $r^* - HA_{r^*(i)}$; The valuation ratio, $v = \frac{r^*}{r^* - g_Y^*}$; The real and nominal costs of capital by sector, CC_{REAL}^* , $CC_{REAL(G)}^*$, $CC_{REAL(PRI)}^*$; $CC_{NOMINAL}^*$, $CC_{NOMINAL(G)}^*$, $CC_{NOMINAL(PRI)}^*$. Equations of the real growth rate; $g_{Y REAL}^* = g_Y^* - HA_{g_Y^*}$, where $HA_{g_Y^*} = HA_{r^*(i)} \times i\beta^* / \alpha$ and, $i\beta^* / \alpha$ is the endogenous Petersburg coefficient.

Aspect 2 shows a base for endogenous situation from the viewpoint of endogenous equilibrium

Nine items: The speed of years by sector, $1/\lambda^*$, $1/\lambda_G^*$, $1/\lambda_{PRI}^*$ where speed years is $\lambda^* = (1 - \alpha)n + (1 - \delta_0)g_A^*$.

The actual and endogenous ratios of net investment to output, and the difference, i_{actual} , $i_{Endogenous}$, $i_{actual-endog}$.

Deficit, the balance of payments, and the difference: Δd ; $s_{PRI} - i_{PRI}$; $bop = BOP/Y$.

Aspect 3 shows a base for endogenous situation from the viewpoint of the endogenous NAIRU (the non-accelerating-inflation rate of unemployment)

Nine items: The actual growth rate of population, Its rate of change in equilibrium, and The difference, by sector: n , $n_{EG} - n$, $n_{EPRI} - n$; $n_{EG} - n_G$, $n_{EPRI} - n_{PRI}$.

The actual rate of unemployment; *Unem rate(actual)*.

The rate of change in *CPI* (consumers' price index); $g_{CPI(actual)}$.

A compound rate of inflation to test the quality of *CPI*; $Infla\ rate_{COMPOUND} = r_{DEBT} - (r^* - HA_{r^*(i)})$, where $r^* - HA_{r^*(i)}$ is the endogenous rate of inflation.

Aspect 4 shows a base for endogenous situation from the viewpoint of technology-oriented robustness and economic stage

Aspect 4 wholly ties up technology, robustness and economic stage.

Ten items: The horizontal asymptote of $\beta^*(i)$ by sector: $HA_{\beta^*(i)}$; $HA_{\beta^*(i_G)}$; $HA_{\beta^*(i_{PRI})}$.

The horizontal asymptote of $\Omega^*(i)$ by sector: $HA_{\Omega^*(i)}$; $HA_{\Omega^*(i_G)}$; $HA_{\Omega^*(i_{PRI})}$.

The Width of $\Omega^*(i)$ by sector: $Width_{\Omega^*(i)}$; $Width_{\Omega^*(i_G)}$; $Width_{\Omega^*(i_{PRI})}$.

The Width divided by the HA: $Width_{\Omega^*(i)} / HA_{\Omega^*(i)}$.

Aspect 5 shows a base for endogenous situation from the viewpoint of the balance between growth and returns

Ten items: The relative share of capital, α .

The diminishing returns to capital (DRC) coefficient, δ_0 .

The qualitative net investment coefficient, β^* .

The capital-output ratio, $\Omega = \Omega_0 = \Omega^*$.

The rate of technological progress, $g_A^* = i(1 - \beta^*)$.

The endogenous Petersburg coefficient, $\alpha / i \cdot \beta^*$, where $r^* = g_Y^* \left(\frac{\alpha}{i \cdot \beta^*} \right)$.

The rate of return by sector: r^* ; $r_{G^*}^*$; $r_{PRF^*}^*$

Sustainable diminishing to constant level, δ_0 / α .

Aspect 6 shows a base for endogenous situation from the viewpoint of the balance between real assets and financial/market assets (or, the neutrality of financial assets to real assets, as shown in *Int Adv Econ Res* 16: 282–296).

Ten items: The money-neutral indicators: $m_K = M2 / K$; $m = M2 / Y$; $m_\Pi = M2 / \Pi$.

The difference between the market rate and endogenous ratio: $r_{DEBT} - r^*$; r_{DEBT} / r^* .

The exchange rate-neutral indicators are composed of the following five:

- (1) The exchange rate to the US (item ‘ae’, in *IFS*, IMF) divided by the relative growth rate of per capita output, $e_{(US)} / g_y^{**}$, where $g_y^{**} = g_y^* / g_{y(US)}^*$.
- (2) $r_{DEBT} - r^*$.
- (3) $e_{(US)}^* = e_{(US)} + (r^* - r_{(US)}^*)$.
- (4) $e_{(US)} / e_{(US)}^* = e_{(US)} / (e_{(US)} + (r^* - r_{(US)}^*))$.
- (5) $e_{(US)} / y^{**}$, where $y^{**} = y^* / y_{(US)}^*$.

Basic endogenous equations in the endogenous model / system:

1. The capital-output ratio, $\Omega = K / Y$: $\Omega^* = \Omega^* = \frac{\beta^* \cdot i(1 - \alpha)}{i(1 - \beta^*)(1 + n) + n(1 - \alpha)}$.
2. The qualitative coefficients, β^* : $\beta^* = \frac{\Omega^* (n(1 - \alpha) + i(1 + n))}{i(1 - \alpha) + \Omega^* \cdot i(1 + n)}$.
3. The coefficient of diminishing returns, δ_0 : $\delta_0 = 1 + \frac{LN(\Omega^*)}{LN(\beta^*)}$ and $B^* = (1 - \beta^*) / \beta^*$.

4. The level of technology (as stock): $A = TFP = k^{1-\alpha} / \Omega$.
5. The relative price level, p : $p = 1$ always holds using $p \cdot Y = w \cdot L + r \cdot K$ in the transitional path and the data-sets.
6. The relative share of capital, $\alpha = \Pi / Y$: $(1 - \alpha) = \frac{c}{(\rho / r)}$ and, $\frac{K}{L} = \frac{(\alpha / (1 - \alpha))}{(r / w)}$
 or $k = \frac{w \cdot \Omega}{1 - r \cdot \Omega}$.
7. $\sigma = 1.0 = \frac{\Delta k / k}{\left(\Delta\left(\frac{r}{w}\right)\right) / \frac{r}{w}}$ holds in the transitional path.

The above data are summarized using the following two pages by country for 16 countries below: Turkey, Ukraine, Kazakhstan, Pakistan, Bangladesh, Indonesia, Philippines, Sri Lanka, Vietnam, Mexico, Argentina, Bolivia, Chile, Columbia, Paraguay, and Peru.

Table A1–1 Turkey: Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + \text{PRI} = \text{bop}$, the rate of change population and unemployment

Cost of cap ^{it}	$\text{HA}_{T=0}$	$r^* - \text{HA}_{T=0}$	$v^* - r^* / G^* - \text{RY}^*$	$\text{CC}^*_{\text{REAL}}$	$\text{CC}^*_{\text{REAL(G)}}$	$\text{CC}^*_{\text{REAL(PRI)}}$	$\text{CC}^*_{\text{NOMINAL}}$	$\text{CC}^*_{\text{NOMIG}}$	$\text{CC}^*_{\text{NOMIG(P)}}$
14. Turkey	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990	0.0349	0.0170	(3.3456)	(0.0051)	(0.0125)	(0.0072)	(0.0155)	0.0605	(0.0103)
1991	0.0560	0.0208	(18.5196)	(0.0011)	(0.0174)	0.0036	(0.0041)	0.2418	0.0059
1992	0.1110	0.0004	5.3988	0.0001	(0.0423)	0.0000	0.0206	1.7858	0.0220
1993	0.1205	0.0211	8.3464	0.0025	(0.0334)	0.0007	0.0170	(0.9984)	0.0035
1994	0.1716	0.0393	1.7827	0.0221	0.0174	0.0360	0.1183	0.3978	0.1071
1995	0.2276	0.0355	1.8651	0.0190	0.0091	0.0221	0.1411	0.1734	0.1154
1996	0.2243	0.0206	2.6978	0.0076	0.0045	0.0070	0.0908	0.0973	0.0676
1997	0.2378	0.0250	2.1372	0.0117	(0.0028)	0.0257	0.1229	0.0648	0.1825
1998	0.3266	0.0529	1.4689	0.0360	(0.0002)	0.1326	0.2583	0.0294	0.3022
1999	0.3346	0.0473	1.5178	0.0312	(0.0000)	0.1434	0.2516	(0.0488)	0.5539
2000	0.2810	0.0501	1.4520	0.0345	(0.0000)	0.1392	0.2280	(0.0040)	0.4933
2001	0.2634	0.0631	1.3049	0.0484	(0.0060)	0.6767	0.2502	(0.0884)	0.8407
2002	0.2762	0.0655	1.2779	0.0512	(0.0043)	6.0969	0.2674	(0.0677)	1.2393
2003	0.3294	0.0741	1.2249	0.0605	0.0015	0.6958	0.3294	(0.1475)	(3.3751)
2004	0.2950	0.0524	1.3391	0.0391	0.0017	(8.1256)	0.2594	(0.0699)	(2.8494)
2005	0.2604	0.0446	1.4152	0.0315	(0.0040)	(3.0192)	0.2155	(0.0543)	(5.6569)
2006	0.2127	0.0309	1.7173	0.0180	(0.0025)	0.2315	0.1419	(0.0255)	1.4524
2007	0.2052	0.0337	1.5992	0.0211	(0.0019)	0.1350	0.1494	(0.0159)	0.8368
2008	0.1495	0.0223	2.2696	0.0098	(0.0019)	0.0534	0.0757	(0.0211)	0.2931
2009	0.2000	0.0000	1.2693	0.0000	(0.0067)	(0.4569)	0.1576	(0.0745)	0.9577
Speed and,	$1/\lambda^*$	$1/\lambda_{G^*}$	$1/\lambda_{\text{PRI}^*}$	$\hat{\lambda}_{\text{actual}}$	$\hat{\lambda}_{\text{endogenous}}$	difference	Δd	$\text{SPRI} - \text{IPRI}$	bop
14. Turkey	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL
1990	24.22	(13.58)	40.75	0.1786	0.1604	0.0182	(0.0341)	(0.0137)	(0.0478)
1991	27.27	(4.60)	39.96	0.1801	0.1519	0.0281	(0.0565)	0.0264	(0.0302)
1992	2.50	(1.97)	30.46	0.1799	0.1610	0.0189	(0.0468)	0.0146	(0.0321)
1993	3.42	1.78	(13.46)	0.2004	0.1762	0.0242	(0.0256)	(0.0356)	(0.0612)
1994	7.89	2.60	8.54	0.1861	0.1082	0.0778	(0.0321)	0.0427	0.1006
1995	7.02	2.20	9.62	0.1875	0.1388	0.0486	(0.0217)	(0.0284)	(0.0501)
1996	5.86	1.49	7.28	0.1973	0.1848	0.0126	(0.0240)	(0.0466)	(0.0707)
1997	6.48	(0.67)	9.70	0.2078	0.1631	0.0447	(0.0483)	(0.0170)	(0.0653)
1998	7.59	(10.49)	21.72	0.1798	0.1248	0.0549	(0.0391)	0.0521	0.0130
1999	6.95	19.13	14.91	0.1410	0.1396	0.0014	(0.0486)	0.0502	0.0016
2000	8.54	17.32	16.59	0.0188	0.1097	(0.0909)	(0.0296)	(0.0041)	(0.0337)
2001	11.35	10.55	39.06	0.1213	0.0770	0.0443	(0.0456)	0.0904	0.0448
2002	11.78	11.53	165.45	0.1315	0.0743	0.0572	(0.0457)	0.0641	0.0184
2003	11.81	6.86	(17.36)	0.1338	0.0741	0.0597	(0.0864)	0.0747	(0.0117)
2004	9.90	9.40	186.20	0.1600	0.0943	0.0657	(0.0530)	0.0234	(0.0296)
2005	9.25	11.37	39.96	0.1654	0.1010	0.0644	(0.0433)	0.0040	(0.0393)
2006	7.75	14.27	12.51	0.1753	0.1242	0.0511	(0.0267)	(0.0285)	(0.0552)
2007	7.50	16.59	12.72	0.1685	0.1131	0.0553	(0.0200)	(0.0380)	(0.0580)
2008	6.43	14.49	13.69	0.1547	0.1308	0.0239	(0.0271)	(0.0220)	(0.0491)
2009	18.57	11.25	(53.38)	0.1295	0.0643	0.0652	(0.0601)	0.0473	(0.0329)
Unemployment	n	$\text{DEQUIG} - n$	$\text{DEQUIPRI} - n$	$\text{DEQUI} - n$	$\text{DEQUIG} - \text{DEQUIPRI}$	$\text{DEQUIPRI} - n$	Unem. rate (act)	$\text{G} - \text{P}$ (actual)	Infla. rate
14. Turkey	under attaining equilibrium			under the same wage rate	by sector		actual, to population		
1990	0.0220	0.0000	0.0000	0.0000	0.0000	0.0000	(0.0333)	0.6026	0.3830
1991	0.0219	0.0000	0.0000	0.0000	(0.1010)	0.0157	(0.0374)	0.6600	0.4792
1992	0.0218	0.0232	(0.0217)	(0.0215)	(0.0300)	(0.0125)	(0.0351)	0.7006	0.4996
1993	0.0186	0.0000	0.0000	0.0000	0.0175	(0.0032)	(0.0356)	0.6606	0.4789
1994	0.0173	0.0000	0.0000	0.0000	0.0945	(0.0171)	(0.0347)	1.0627	0.5607
1995	0.0165	0.0000	0.0000	0.0000	0.0342	(0.0055)	(0.0297)	0.8812	0.4645
1996	0.0130	0.0000	0.0000	0.0000	(0.0685)	0.0106	(0.0261)	0.8095	0.4794
1997	0.0133	0.0000	0.0000	0.0000	(0.0617)	0.0103	(0.0311)	0.8596	0.6450
1998	0.0169	(0.0189)	0.0000	0.0000	0.1388	(0.0283)	(0.0279)	0.8491	0.6171
1999	0.0161	(0.0158)	0.0000	0.0000	(0.1683)	0.0225	(0.0329)	0.6480	0.5527
2000	0.0156	(0.0153)	0.0000	0.0000	(0.0117)	(0.0006)	(0.0297)	0.5480	0.5499
2001	0.0147	0.0000	0.0000	0.0000	(0.0112)	0.0019	(0.0378)	0.5440	0.5369
2002	0.0142	0.0000	0.0000	0.0000	(0.0635)	0.0111	(0.0464)	0.4495	0.4845
2003	0.0136	(0.0166)	0.0000	0.0000	0.0021	(0.0035)	(0.0473)	0.2529	0.3559
2004	0.0133	(0.0183)	0.0000	0.0000	0.0050	(0.0043)	(0.0046)	0.1059	0.3276
2005	0.0131	0.0000	0.0000	0.0000	0.0104	(0.0019)	(0.0459)	0.1013	0.1854
2006	0.0129	0.0000	0.0000	0.0000	(0.0385)	0.0068	(0.0446)	0.1050	0.2391
2007	0.0126	0.0000	0.0000	0.0000	(0.0541)	0.0100	(0.0459)	0.0878	0.2163
2008	0.0125	0.0000	0.0000	0.0000	0.0363	(0.0071)	(0.0495)	0.1040	0.2277
2009	0.0123	0.0000	0.0000	(0.0123)	(0.1735)	0.0326	(0.0630)	0.0625	0.2500

Data source: KEWT 5.11–3 for 15 Europe Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A1–2 Turkey: Robustness, endogenous parameters and variables, and neutrality of the financial/market assets to the real assets, using M2, ten year debt yield, and the exchange rate

Robustness	$HA_{\Omega}^{+}(\cdot)$	$HA_{\Omega}^{+}(\cdot)_G$	$HA_{\Omega}^{+}(\cdot)_{PRI}$	$HA_{\Omega}^{+}(\cdot)_{G+PRI}$	$HA_{\Omega}^{+}(\cdot)_{G+PRI}$	$Width_{\Omega}(\cdot)$	$Width_{\Omega}(\cdot)_G$	$Width_{\Omega}(\cdot)_{PRI}$	$Width_{\Omega}(\cdot)_{G+PRI}$	
14. Turkey										
1990	0.6679	1.1714	0.7721	2.6547	(4.2348)	10.4636	0.4553	0.5705	1.6200	0.172
1991	0.5812	1.4687	0.6849	1.6864	(2.3971)	5.0190	0.3084	0.2879	0.8070	0.033
1992	0.4924	4.5380	0.5790	0.8781	(1.0535)	1.2497	0.0217	1.0004	0.0164	0.025
1993	0.4240	(0.5395)	0.4825	0.7705	(0.3089)	1.0323	0.1543	0.0559	0.1926	0.200
1994	0.3326	0.2290	0.3467	0.5458	0.2480	0.7265	0.1163	0.0669	0.1432	0.213
1995	0.2936	0.4005	0.2735	0.4267	0.5251	0.4264	0.0961	0.1048	0.0971	0.225
1996	0.2972	0.4521	0.2623	0.4135	0.6530	0.3666	0.0838	0.1092	0.0783	0.203
1997	0.2853	0.4979	0.2267	0.3946	0.8290	0.3117	0.0822	0.1339	0.0712	0.208
1998	0.2354	0.5798	0.1274	0.3155	0.8802	0.2439	0.0799	0.0518	0.0698	0.253
1999	0.2648	0.6056	0.1321	0.3563	1.1104	0.1851	0.0839	0.0247	0.0570	0.235
2000	0.2643	0.6102	0.1281	0.3731	1.1731	0.1868	0.0854	0.0260	0.0566	0.229
2001	0.2450	0.6140	0.0935	0.3589	1.3987	0.4788	0.0814	0.2139	0.0989	0.227
2002	0.2386	0.6223	0.0590	0.3457	1.3773	(0.0147)	0.0780	0.2058	#NUM!	0.226
2003	0.2494	0.6930	(0.0292)	0.3546	1.6880	(0.0212)	0.0769	0.1112	#NUM!	0.217
2004	0.2740	0.7236	(0.0227)	0.3884	1.8947	0.1555	0.0807	0.1580	0.0138	0.208
2005	0.3065	0.7523	(0.0166)	0.4511	2.3543	(0.0316)	0.0884	0.3078	#NUM!	0.196
2006	0.3407	0.7498	0.0557	0.5197	2.4980	0.0636	0.0969	0.3239	0.0282	0.186
2007	0.3761	0.7506	0.1153	0.6068	2.6647	0.1373	0.1062	0.3404	0.0421	0.175
2008	0.3984	0.7639	0.1516	0.6756	2.5635	0.2028	0.1147	0.3239	0.0535	0.170
2009	0.4249	0.7725	0.1272	0.6439	3.0525	0.0860	0.0031	0.3814	0.0318	0.005
Endogenous	α	δ_0	β^{+}	Ω	$\beta_{\alpha}^{+}=(1-\beta^{+})$	$X=\alpha/\beta_{\alpha}^{+}$	$r^{+}=\alpha/\Omega$	$r_G^{+}=\alpha_G/\Omega_G$	$r_{PRI}^{+}=\alpha_{PRI}/\Omega_{PRI}$	$\delta_0\alpha$
14. Turkey										
1990	0.0926	0.4707	0.7494	1.7856	0.0402	0.7699	0.0518	(0.0461)	0.0211	5.085
1991	0.0945	0.6785	0.6556	1.2298	0.0523	0.9488	0.0768	(0.0631)	0.0418	7.181
1992	0.0975	(3.9022)	0.4932	0.8752	0.0816	1.2273	0.1114	(0.1125)	0.0745	(40.038)
1993	0.0929	(1.9159)	0.4639	0.6555	0.0945	1.1361	0.1417	(0.4421)	0.1020	(20.633)
1994	0.0936	(0.6565)	0.3799	0.4440	0.0671	2.2776	0.2109	0.7926	0.1584	(7.011)
1995	0.0971	(0.3594)	0.3245	0.3691	0.0938	2.1559	0.2632	0.4878	0.2014	(3.700)
1996	0.0927	(0.2563)	0.3159	0.3787	0.1264	1.5890	0.2449	0.3779	0.1932	(2.764)
1997	0.0938	(0.2585)	0.3061	0.3571	0.1131	1.8794	0.2627	0.2394	0.2769	(2.755)
1998	0.1030	(0.2682)	0.2635	0.2715	0.0920	3.1325	0.3795	0.4068	0.3407	(2.603)
1999	0.1192	(0.3097)	0.2913	0.3122	0.0989	2.9312	0.3819	0.2499	0.6163	(2.597)
2000	0.1048	(0.3375)	0.2974	0.3167	0.0771	3.2126	0.3311	0.2146	0.5485	(3.220)
2001	0.0945	(0.3609)	0.2868	0.2895	0.0549	4.2795	0.3265	0.1290	0.8590	(3.819)
2002	0.0955	(0.3452)	0.2793	0.2794	0.0536	4.5990	0.3416	0.1591	1.2422	(3.616)
2003	0.1168	(0.3787)	0.2892	0.2895	0.0527	5.4474	0.4034	0.1447	(3.4411)	(3.243)
2004	0.1145	(0.3679)	0.3077	0.3298	0.0653	3.9492	0.3474	0.1351	(2.8448)	(3.832)
2005	0.1175	(0.4501)	0.3412	0.3851	0.0665	3.4085	0.3050	0.1248	(5.6323)	(3.212)
2006	0.1105	(0.5068)	0.3718	0.4537	0.0780	2.3942	0.2437	0.1060	1.5335	(4.585)
2007	0.1247	(0.8402)	0.4124	0.5212	0.0665	2.6689	0.2389	0.0898	0.9150	(6.749)
2008	0.1010	(0.9434)	0.4321	0.5880	0.0743	1.7876	0.1718	0.1161	0.3615	(9.338)
2009	0.1288	(0.4567)	0.4250	0.6437	0.0370	4.7133	0.2001	0.0619	0.9319	(3.546)
Neutrality c	$m_K=M/K$	$m_M=M/Y$	$m_I=M/I$	$r_{DEBT}=r^{+}$	$r_{DEBT}=r^{+}$	$e_{(US)/\beta_{\alpha}^{+}}$	$r^{+}=e_{(US)}$	$e_{(US)}$	$e_{(US)}/e_{(US)}$	$e_{(US)}/e_{(US)}$
14. Turkey										
1990	0.9536	1.7028	18.3955	0.3482	7.7159	397	(0.0219)	2930	1.0000	5682
1991	1.1145	1.3706	14.5051	0.4232	6.5077	406	0.0095	5080	1.0000	3232
1992	1.0231	0.8954	9.1869	0.3886	4.4898	374	0.0380	8564	1.0000	12072
1993	0.9143	0.5933	6.4543	0.3583	3.5296	1432	0.0751	14473	1.0000	14871
1994	1.0686	0.4745	5.0676	0.3891	2.8453	7877	0.1461	38726	1.0000	21197
1995	1.0980	0.4053	4.1725	0.2368	1.9000	0.0067	0.2046	0.2643	0.2259	0.0138
1996	1.0544	0.3993	4.3063	0.2551	2.0420	0.0113	0.1886	0.2964	0.3637	0.0142
1997	0.9057	0.3234	3.4471	0.4073	2.5500	0.0297	0.2106	0.4162	0.4940	0.0152
1998	0.7663	0.2081	2.0193	0.2905	1.7655	0.0707	0.3292	0.6437	0.4886	0.0115
1999	0.6191	0.1932	1.6208	0.2181	1.5709	0.1424	0.3327	0.8741	0.6194	0.0147
2000	0.6068	0.1921	1.8327	0.2689	1.8122	0.2573	0.2809	0.9543	0.7056	0.0141
2001	0.7383	0.2138	2.2615	0.2735	1.8379	0.5750	0.2672	1.7173	0.8444	0.0209
2002	0.7099	0.1984	2.0779	0.2084	1.6099	0.4647	0.2651	1.9088	0.8611	0.0161
2003	0.7059	0.2044	1.7499	0.0266	1.0659	0.3644	0.3199	1.7165	0.8136	0.0111
2004	0.6615	0.2182	1.9045	0.0326	1.0940	0.3260	0.2604	1.5999	0.8372	0.0098
2005	1.0737	0.4135	3.5202	(0.0750)	0.7541	0.2997	0.2083	1.5534	0.8659	0.0094
2006	0.9723	0.4411	3.0263	0.0263	1.1081	0.4013	0.1610	1.5700	0.8975	0.0103
2007	0.8805	0.4589	3.6861	0.0111	1.0466	0.4512	0.1702	1.3410	0.8731	0.0091
2008	0.8675	0.5101	5.0489	0.0782	1.4549	0.4256	0.0975	1.6225	0.9399	0.0107
2009	0.8823	0.5680	4.4104	0.0499	1.2496	0.6296	0.1317	1.6226	0.9188	0.0072

Data source: KEWT 5.11–3 for 15 Europe Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A2-1 Ukraine: Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + \text{PRI} = \text{bop}$, the rate of change population and unemployment

Cost of capit	HA_{t+1}	$r^* - \text{HA}_{t+1}$	$v^* = r^* / G^* - \text{BY}^*$	$\text{CC}^*_{\text{REAL}}$	$\text{CC}^*_{\text{REAL}(G)}$	$\text{CC}^*_{\text{REAL}(\text{PRI})}$	$\text{CC}^*_{\text{NOMINAL}}$	$\text{CC}^*_{\text{NOM}(G)}$	$\text{CC}^*_{\text{NOM}(\text{PRI})}$
15. Ukraine	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990									
1991									
1992									
1993	0.0889	(0.0844)	2.4543	(0.0344)	(0.0017)	(0.0675)	0.0018	(0.0086)	0.0024
1994	0.0478	(0.0038)	2.8560	(0.0013)	(0.0000)	(0.0491)	0.0154	0.0025	0.0180
1995	0.1422	(0.0109)	3.0283	(0.0036)	0.0018	(0.0114)	0.0433	(0.1086)	0.0640
1996	0.1410	(0.0110)	3.3373	(0.0033)	0.0015	(0.0100)	0.0390	(0.0644)	0.0568
1997	0.1679	(0.0129)	2.9702	(0.0044)	0.0012	(0.0098)	0.0522	(0.0375)	0.0728
1998	0.0607	(0.0223)	17.4740	(0.0013)	0.0023	0.0043	0.0022	(0.0197)	(0.0071)
1999	0.0670	(0.0144)	3.0054	(0.0048)	0.0005	0.0161	0.0175	(0.0094)	0.0144
2000	0.0904	(0.0142)	3.0473	(0.0047)	(0.0005)	0.0823	0.0250	0.0102	0.0140
2001	0.0824	(0.0109)	5.1981	(0.0021)	(0.0001)	0.1065	0.0137	0.0019	0.0048
2002	0.0962	(0.0139)	2.5431	(0.0055)	(0.0113)	(0.0059)	0.0323	0.0152	0.0479
2003	0.0993	(0.0117)	3.1160	(0.0037)	(0.0019)	(0.0045)	0.0281	0.0034	0.0457
2004	0.1896	(0.0204)	1.5895	(0.0128)	0.0059	(0.0205)	0.1065	(0.0407)	0.1835
2005	0.1095	(0.0102)	3.6224	(0.0028)	0.0094	(0.0110)	0.0274	(0.0342)	0.0622
2006	0.0970	(0.0075)	33.0009	(0.0002)	(0.0014)	(0.0002)	0.0027	0.0081	0.0027
2007	0.1057	(0.0064)	(23.9474)	0.0003	(0.0009)	0.0005	(0.0041)	0.0093	(0.0039)
2008	0.1004	(0.0076)	(5.4774)	0.0014	(0.0018)	0.0031	(0.0169)	0.0209	(0.0257)
2009	0.1170	(0.0133)	1.8408	(0.0072)	0.0004	0.0049	0.0563	(0.0190)	0.0314
Speed and,	$1/\lambda^*$	$1/\lambda^*_G$	$1/\lambda^*_{\text{PRI}}$	I_{actual}	$\text{I}_{\text{endoge.}}$	difference	Δd	$\text{SPRI} - \text{I}_{\text{PRI}}$	bop
15. Ukraine	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL
1990									
1991									
1992									
1993	31.69	88.26	32.05	0.2121	0.3182	(0.1061)	(0.0568)	0.0568	0.0000
1994	124.72	33.63	72.72	0.1922	0.4129	(0.2206)	(0.0090)	(0.0289)	(0.0379)
1995	30.42	18.64	52.95	0.1883	0.3571	(0.1688)	(0.0735)	0.0210	(0.0525)
1996	22.73	16.82	36.52	0.1664	0.3035	(0.1370)	(0.0559)	0.0126	(0.0434)
1997	23.87	19.31	32.13	0.1557	0.3302	(0.1745)	(0.0416)	(0.0071)	(0.0488)
1998	13.83	18.16	178.67	0.1531	0.1423	0.0108	(0.0325)	(0.0152)	(0.0476)
1999	24.23	22.73	(40.36)	0.1509	0.1121	0.0388	(0.0225)	0.0540	0.0315
2000	20.27	25.02	(33.70)	0.1536	0.1410	0.0126	(0.0089)	0.0317	0.0229
2001	17.83	22.14	(27.27)	0.1535	0.1506	0.0029	(0.0147)	0.0131	(0.0016)
2002	21.07	34.72	19.64	0.1495	0.1290	0.0205	0.0049	0.0280	0.0330
2003	19.34	29.38	20.04	0.1606	0.1462	0.0144	(0.0029)	0.0187	0.0158
2004	32.28	16.17	215.18	0.1758	0.1352	0.0406	(0.0293)	0.1037	0.0744
2005	17.51	17.40	46.05	0.1711	0.1529	0.0182	(0.0191)	0.0159	(0.0033)
2006	15.00	17.58	31.60	0.1917	0.1817	0.0100	(0.0074)	(0.0421)	(0.0494)
2007	21.91	16.03	240.31	0.2143	0.2074	0.0069	(0.0128)	(0.0558)	(0.0686)
2008	20.17	19.36	110.09	0.2117	0.2196	(0.0079)	(0.0115)	(0.0883)	(0.0998)
2009	23.87	19.66	51.29	0.1403	0.1020	0.0383	(0.0328)	(0.0095)	(0.0423)
Unemployment	n	$\text{DeQU}(G)-n$	$\text{DeQU}(\text{PRI})-n$	DeQU^*-n	$\text{DeQU}(G)-\text{DeQU}^*$	$\text{DeQU}(\text{PRI})-\text{DeQU}^*$	Unem.rate(actual)	$\text{DeCP}(\text{actual})$	Infla. rate
15. Ukraine	under attaining equilibrium						actual; to population		
1990									
1991									
1992									
1993	0.0035	0.0000	(0.0535)	#DIV/0!	#DIV/0!	#DIV/0!	0.0000	0.0000	0.3744
1994	(0.0025)	0.0000	(0.0475)	0.0000	0.3324	(0.1877)	0.0000	(0.8118)	0.2838
1995	(0.0073)	0.0000	0.0000	0.0000	0.4121	(0.1016)	(0.0252)	(0.5773)	0.2609
1996	(0.0077)	0.0000	0.0000	0.0000	(0.0067)	0.0009	(0.0342)	(0.7868)	0.2310
1997	(0.0086)	0.0000	0.0000	0.0000	(0.0075)	0.0129	(0.0401)	(0.8020)	0.2329
1998	(0.0210)	0.0000	0.0200	0.0000	0.1732	(0.0054)	(0.0509)	(0.3333)	0.2221
1999	(0.0096)	0.0000	(0.0154)	0.0000	0.1459	(0.0325)	(0.0522)	1.1415	0.2206
2000	(0.0095)	0.0000	(0.0155)	0.0000	(0.0126)	(0.0142)	(0.0522)	0.2423	0.1884
2001	(0.0088)	0.0000	(0.0262)	0.0000	(0.1054)	(0.0157)	(0.0491)	(0.5745)	0.1460
2002	(0.0085)	0.0000	0.0000	0.0000	(1.3172)	0.1473	(0.0432)	(0.9333)	0.1337
2003	(0.0079)	0.0000	0.0000	0.0000	(0.0338)	0.0103	(0.0410)	5.5000	0.1312
2004	(0.0076)	0.0000	0.0000	0.0000	(0.0254)	0.0081	(0.0387)	0.7308	0.1433
2005	(0.0074)	0.0000	(0.0076)	0.0000	0.0793	(0.0338)	(0.0324)	(0.8612)	0.1262
2006	(0.0072)	0.0000	0.0000	0.0000	0.0040	(0.0012)	(0.0306)	(0.3309)	0.1204
2007	(0.0067)	0.0000	(0.0073)	0.0000	0.0248	(0.0147)	(0.0302)	0.4066	0.1197
2008	(0.0065)	0.0000	(0.0075)	(0.0025)	0.0208	(0.0134)	(0.0288)	0.9688	0.1244
2009	(0.0061)	0.0000	0.0000	0.0000	0.6064	(0.1683)	(0.0396)	(0.3690)	0.1159

Data source: KEWT 5.11-3 for 15 Europe Area by sector, 1990-2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A2–2 Ukraine: Robustness, endogenous parameters and variables, and neutrality of the financial/market assets to the real assets, using M2, ten year debt yield, and the exchange rate

Robustness	HA _B ⁺ _(I)	HA _B ⁺ _(IG)	HA _B ⁺ _{(I)PRI}	HA _Ω ⁺ _(I)	HA _Ω ⁺ _(IG)	HA _Ω ⁺ _{(I)PRI}	Width _{Ω(I)}	Width _{Ω(IG)}	Width _{Ω(PRI)}	Wid/HA _{Ω(I)}
15. Ukraine		G	PRI		G	PRI		G	PRI	
1990										
1991										
1992										
1993	0.9951	0.9769	0.9963	5.5041	37.7940	4.4800	1.2895	2.2434	1.0539	0.234
1994	0.9733	0.9260	0.9758	12.8940	4.2840	4.4827	0.6527	0.2222	1.0476	0.051
1995	0.8633	0.8687	0.8626	3.2013	2.0766	3.2265	0.2959	0.1905	0.3003	0.092
1996	0.7968	0.8554	0.7854	2.4068	2.2416	2.2865	0.2391	0.2135	0.2311	0.099
1997	0.8071	0.8767	0.7897	2.3549	2.6836	2.2004	0.2446	0.2659	0.2325	0.104
1998	0.7272	0.8683	0.6921	1.5599	2.8787	1.4132	0.2855	0.4513	0.0586	0.183
1999	0.6948	0.8888	0.6278	1.6090	3.0946	(14.9988)	0.1973	0.3231	2.2878	0.123
2000	0.6613	0.8867	0.5733	1.4448	2.9818	(0.2789)	0.1788	0.3100	0.0715	0.124
2001	0.6381	0.8775	0.5303	1.3694	3.0785	(0.0551)	0.1652	0.3093	0.0434	0.121
2002	0.6389	0.7425	0.5883	1.3306	1.5496	1.0985	0.1578	0.1806	0.1351	0.119
2003	0.6243	0.7069	0.5872	1.2894	1.4853	1.1054	0.1487	0.1698	0.1309	0.115
2004	0.6154	0.6872	0.5839	1.1306	1.8854	0.9385	0.1281	0.2021	0.1092	0.113
2005	0.5613	0.6343	0.5319	1.0362	1.3866	0.8381	0.1216	0.1573	0.1464	0.117
2006	0.5500	0.5999	0.5329	1.0236	1.1935	0.9573	0.1196	0.1358	0.1134	0.117
2007	0.5366	0.5721	0.5235	0.9816	1.1107	0.8839	0.1109	0.1222	0.1489	0.113
2008	0.5254	0.5454	0.5185	0.9355	0.9961	0.8869	0.1248	0.1107	0.1499	0.133
2009	0.5656	0.8437	0.4799	1.0218	1.9885	1.1067	0.1089	0.1692	0.1195	0.107
Endogenous	α	δ_a	β^+	Ω	$\beta_A^+ = (1 - \beta^+)$	$X = r^+ / \beta_Y^+$	$r^+ = \alpha / \Omega$	$r^+_{IG} = \alpha_{IG} / \Omega_{IG}$	$r^+_{PRI} = \alpha_{PRI} / \Omega_{PRI}$	$\delta a / \alpha$
15. Ukraine						$X = a / (1 - b^+)$	G		PRI	
1990										
1991										
1992										
1993	0.4892	(1.0163)	0.9110	108.8224	0.0283	1.6876	0.0045	0.0092	0.0042	(2.077)
1994	0.6170	0.2486	0.9711	14.0157	0.0119	1.5388	0.0440	0.1498	0.0363	0.403
1995	0.4551	0.2950	0.8536	3.4668	0.0523	1.4930	0.1313	0.3236	0.1047	0.648
1996	0.3394	0.2532	0.7833	2.6112	0.0658	1.4278	0.1300	0.2683	0.1005	0.746
1997	0.3955	0.3068	0.7943	2.5513	0.0679	1.5076	0.1550	0.2212	0.1366	0.776
1998	0.0948	(0.7250)	0.6278	2.4648	0.0530	1.0607	0.0384	0.1631	(0.0655)	(7.651)
1999	0.1077	(0.2390)	0.6411	2.0515	0.0403	1.4987	0.0525	0.3939	0.0080	(2.391)
2000	0.1306	(0.0808)	0.6221	1.7137	0.0533	1.4884	0.0762	0.1921	0.0097	(0.619)
2001	0.1128	(0.0731)	0.6047	1.5781	0.0595	1.2382	0.0715	0.1703	0.0032	(0.648)
2002	0.1280	(0.0680)	0.6021	1.5562	0.0513	1.6480	0.0823	0.0266	0.1166	(0.531)
2003	0.1280	0.0110	0.5946	1.4608	0.0593	1.4726	0.0876	0.0172	0.1258	0.086
2004	0.2144	0.3369	0.5882	1.2666	0.0557	2.6962	0.1693	0.0113	0.2510	1.571
2005	0.1134	0.1003	0.5371	1.1430	0.0708	1.3813	0.0992	(0.0073)	0.1471	0.885
2006	0.0993	0.1428	0.5301	1.1089	0.0854	1.0312	0.0896	0.0485	0.1055	1.438
2007	0.1037	0.4806	0.5211	1.0448	0.0993	0.9599	0.0993	0.0789	0.1063	4.633
2008	0.0939	0.4680	0.5057	1.0122	0.1085	0.8456	0.0928	0.0973	0.0914	4.985
2009	0.1196	0.0020	0.5356	1.1532	0.0473	2.1894	0.1037	0.3096	(0.0078)	0.017
Neutrality c	$m_K = M/K$	$m = M/Y$	$m_I = M/I$	$f(DERT) = r^+$	$f(DERT) = r^+$	$(e_{US})/gy^{**}$	$r^+ - f^+(US)$	$e^+(US)$	$e_{US}/e^+(US)$	e_{US}/y^{**}
15. Ukraine						$gy^{**} = gy^*/gy^*(US)$	$e^+(US) = e(US) + (r^+ - r^*(US))$	$y^{**} = y^*/y^*(US)$		
1990										
1991										
1992										
1993	2.38	259.02	529.48	0.2855	64.5121	0.02	(0.0620)	0.06	1.9679	39.20
1994	12.57	176.14	285.49	0.2360	6.3608	0.50	(0.0208)	1.02	1.0203	6.13
1995	28.38	98.37	216.16	0.1187	1.9045	0.22	0.0727	1.87	0.9610	5.90
1996	33.83	88.34	260.25	0.0900	1.6924	0.28	0.0738	1.96	0.9624	5.90
1997	42.20	107.66	272.24	0.0650	1.4193	0.30	0.1029	2.00	0.9486	5.52
1998	67.80	167.12	1763.55	0.1614	5.1967	1.35	(0.0118)	3.42	1.0035	62.56
1999	90.19	185.02	1717.46	0.1537	3.9266	3.42	0.0033	5.22	0.9994	64.49
2000	120.24	206.05	1577.94	0.0980	2.2861	2.92	0.0261	5.46	0.9952	48.97
2001	155.80	245.87	2180.19	0.0636	1.8905	1.90	0.0122	5.31	0.9977	40.28
2002	203.39	316.51	2472.33	0.0375	1.4563	1.52	0.0058	5.34	0.9989	33.13
2003	269.92	394.29	3079.97	0.0319	1.3636	1.22	0.0041	5.34	0.9992	27.12
2004	318.96	404.01	1884.39	(0.0464)	0.7261	1.34	0.0823	5.39	0.9847	9.21
2005	425.28	486.08	4285.60	0.0168	1.1689	1.06	0.0025	5.05	0.9995	17.18
2006	477.62	529.65	5332.85	0.0233	1.2606	1.33	0.0069	5.06	0.9986	16.18
2007	577.38	603.23	5814.79	0.0140	1.1410	1.33	0.0307	5.08	0.9940	4.93
2008	592.26	599.51	6384.78	0.0240	1.2592	1.48	0.0184	7.72	0.9976	5.66
2009	510.66	588.87	4925.23	(0.0011)	0.9896	2.66	0.0353	8.02	0.9956	15.37

Data source: KEWT 5.11–3 for 15 Europe Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A3–1 Kazakhstan: Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + \text{PRI} = \text{bop}$, the rate of change population and unemployment

Cost of capit	$\text{HA}_{t^*}(\text{I})$	$\Gamma^* - \text{HA}_{t^*}(\text{I})$	$\nabla^* \pi^* / (\Gamma^* - \text{RY}^*)$	$\text{CC}^*_{\text{REAL}}$	$\text{CC}^*_{\text{REAL(G)}}$	$\text{CC}^*_{\text{REAL(PRI)}}$	$\text{CC}^*_{\text{NOMINAL}}$	$\text{CC}^*_{\text{NOMIG(G)}}$	$\text{CC}^*_{\text{NOMIG(PRI)}}$
9. Kazakh	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990									
1991									
1992									
1993									
1994									
1995	0.1540	(0.0239)	2.6805	(0.0089)	0.0006	(0.0043)	0.0485	(0.0183)	0.0599
1996	0.1797	(0.0340)	1.6849	(0.0202)	0.0063	(0.1014)	0.0865	(0.0807)	0.1522
1997	0.2201	(0.0437)	1.5038	(0.0291)	0.0053	(0.1612)	0.1173	(0.0619)	0.2054
1998	0.2475	(0.0569)	1.3336	(0.0426)	0.0056	(0.0064)	0.1429	(0.0682)	0.2639
1999	0.1844	(0.0449)	1.3571	(0.0331)	0.0032	0.1254	0.1028	(0.0434)	0.1860
2000	0.2802	(0.0406)	1.2437	(0.0327)	(0.0031)	(0.0991)	0.1926	0.0340	0.3542
2001	0.1972	(0.0018)	2.1987	(0.0008)	(0.0006)	(0.0036)	0.0888	0.0111	0.1751
2002	0.2493	(0.0215)	1.8720	(0.0115)	0.0004	0.0020	0.1217	0.0227	0.1826
2003	0.2756	(0.0276)	1.5693	(0.0176)	0.0008	0.0151	0.1580	0.0235	0.2196
2004	0.3244	(0.0289)	1.5301	(0.0189)	0.0023	0.0176	0.1931	0.0480	0.2636
2005	0.3920	(0.0530)	1.6053	(0.0330)	0.0040	0.0119	0.2112	0.0828	0.2608
2006	0.4910	(0.1051)	1.6141	(0.0651)	0.0037	(0.0141)	0.2391	0.1052	0.2762
2007	0.3502	(0.0053)	2.2934	(0.0023)	(0.0004)	(0.1001)	0.1504	(0.0088)	0.2526
2008	0.4161	(0.0094)	1.4702	(0.0064)	0.0234	1.7139	0.2766	0.2483	0.6079
2009	0.2188	0.0145	2.1373	0.0068	(0.0003)	0.0089	0.1092	(0.0044)	0.1455
Speed and,	$1/\lambda^*$	$1/\lambda_G^*$	$1/\lambda_{\text{PRI}}^*$	i_{actual}	$i_{\text{endoge.}}$	difference	Δd	$\text{SPRI} - i_{\text{PRI}}$	bop
9. Kazakh	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL
1990									
1991									
1992									
1993									
1994									
1995	17.90	13.06	15.10	0.0310	0.1491	(0.1180)	(0.0267)	(0.0321)	(0.0588)
1996	25.69	7.61	148.59	0.0022	0.1064	(0.1042)	(0.0478)	0.0296	(0.0182)
1997	25.76	8.54	190.43	(0.0081)	0.1056	(0.1136)	(0.0433)	(0.0011)	(0.0444)
1998	38.34	9.14	237.27	0.0222	0.0892	(0.0670)	(0.0474)	(0.0001)	(0.0475)
1999	51.14	10.74	40.95	0.0208	0.0689	(0.0481)	(0.0370)	0.0717	0.0348
2000	25.08	19.18	45.55	0.0128	0.0760	(0.0633)	(0.0014)	0.1003	0.0989
2001	7.07	25.28	7.47	0.0983	0.1658	(0.0675)	(0.0047)	0.0045	(0.0002)
2002	6.11	20.92	5.90	0.1076	0.1806	(0.0730)	(0.0042)	0.0093	0.0050
2003	7.40	16.06	8.09	0.1033	0.1522	(0.0489)	(0.0120)	0.0702	0.0582
2004	5.37	18.47	5.98	0.1272	0.1658	(0.0386)	(0.0037)	0.0895	0.0858
2005	3.43	22.19	2.36	0.1611	0.2117	(0.0506)	0.0070	0.0851	0.0921
2006	2.50	23.00	1.17	0.1862	0.2554	(0.0692)	0.0091	0.0959	0.1051
2007	(120.33)	14.23	5.71	0.1843	0.3220	(0.1377)	(0.0188)	0.0676	0.0488
2008	(120.16)	66.43	(3.96)	0.1472	0.2066	(0.0595)	0.0520	0.1582	0.2101
2009	29.06	16.01	39.55	0.1620	0.2380	(0.0760)	(0.0163)	0.1076	0.0913
Unemploying	n	$\text{DEQUIG} - n$	$\text{DEQUI}(\text{PRI}) - n$	$\text{DEQUI} - n$	$\text{DEQUI}(\text{G}) - n$	$\text{DEQUI}(\text{PRI}) - n$	Unem. rate(sect)	$\text{G} - \text{PRI}(\text{actual})$	Infla. rate
9. Kazakh	under attaining equilibrium						actual; to population		
1990									
1991									
1992									
1993									
1994									
1995	(0.0050)	0.0000	0.0000	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	0.0239
1996	(0.0138)	0.0000	0.0000	0.0000	(0.0068)	0.0013		0.3927	0.0340
1997	(0.0146)	0.0000	0.0000	0.0000	0.0219	(0.0042)		0.1726	0.0437
1998	(0.0142)	0.0000	0.0141	0.0000	0.0987	(0.0045)		0.0723	0.0569
1999	(0.0118)	0.0000	0.0000	0.0000	0.0503	(0.0084)		0.0833	0.0449
2000	(0.0080)	0.0000	0.0000	0.0000	(0.1618)	0.0254		0.1312	0.0406
2001	(0.0027)	0.0000	0.0000	0.0017	(0.1455)	0.0273		0.0840	0.0018
2002	0.0013	0.0000	0.0000	(0.0113)	0.0360	(0.0080)		0.0581	0.0215
2003	0.0054	0.0000	0.0000	(0.0154)	0.0367	(0.0077)		0.0645	0.0276
2004	0.0067	0.0000	0.0000	(0.0167)	(0.0233)	0.0047		0.0688	0.0289
2005	0.0066	0.0000	0.0000	(0.0266)	(0.0194)	0.0040		0.0753	0.0530
2006	0.0066	0.0000	(0.0146)	(0.0466)	0.0128	(0.0173)		0.0860	0.1051
2007	0.0065	0.0000	(0.0765)	(0.0095)	(0.0825)	(0.0593)		0.1077	0.0053
2008	0.0071	0.0000	(0.4971)	(0.0101)	0.0132	(0.5002)		(0.0067)	0.0094
2009	0.0077	0.0000	0.0000	0.0000	(0.0853)	0.0193		(0.0025)	(0.0145)

Data source: KEWT 5.11–4 for 19 Rest Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A3–2 Kazakhstan: Robustness, endogenous parameters and variables, and neutrality of the financial/market assets to the real assets, using M2, ten year debt yield, and the exchange rate

Robustness	$HA_{\beta}^{+}{}_{(i)}$	$HA_{\beta}^{+}{}_{(iG)}$	$HA_{\beta}^{+}{}_{(iPRI)}$	$HA_{\Omega}^{+}{}_{(i)}$	$HA_{\Omega}^{+}{}_{(iG)}$	$HA_{\Omega}^{+}{}_{(iPRI)}$	$Width_{\Omega(i)}$	$Width_{\Omega(iG)}$	$Width_{\Omega(iPRI)}$	$Wid/HA_{\Omega(i)}$
9. Kazakhstan		G	PRI		G	PRI		G	PRI	
1990										
1991										
1992										
1993										
1994										
1995	0.4470	0.6027	0.4053	0.6263	1.2298	0.5871	0.1204	0.1128	0.0666	0.192
1996	0.4221	0.6169	0.3588	0.5420	1.3081	0.3101	0.1045	0.1987	0.0727	0.193
1997	0.4279	0.6592	0.3437	0.5365	1.4911	0.2660	0.1061	0.2255	0.0676	0.198
1998	0.4590	0.7383	0.3448	0.5695	2.0325	0.4504	0.1080	0.2851	0.0077	0.190
1999	0.4197	0.7438	0.2757	0.5025	2.0421	1.1099	0.0918	0.2597	0.1643	0.183
2000	0.4167	0.7116	0.2783	0.5251	1.7526	0.2644	0.0761	0.1879	0.0490	0.145
2001	0.4397	0.6588	0.3463	0.6746	1.6450	0.4479	0.0323	0.1058	0.0396	0.048
2002	0.4908	0.6859	0.4185	0.7283	1.8094	0.5949	0.1064	0.0798	0.0336	0.146
2003	0.4928	0.7013	0.4158	0.7104	1.7235	0.6277	0.1040	0.1498	0.0698	0.146
2004	0.4920	0.6918	0.4197	0.6914	1.6430	0.6104	0.1010	0.1601	0.0754	0.146
2005	0.5156	0.6897	0.4603	0.6863	1.5660	0.6607	0.1402	0.1522	0.0782	0.204
2006	0.5474	0.7117	0.5006	0.6662	1.4799	0.6686	0.1909	0.1415	0.0856	0.286
2007	0.5968	0.6926	0.5494	0.9670	1.8182	0.6008	0.0688	0.1753	0.2328	0.071
2008	0.6132	0.6829	0.4277	0.9437	1.3951	(0.4923)	0.0663	0.1405	0.4127	0.070
2009	0.6427	0.6840	0.6306	1.3439	1.8627	1.2342	0.1458	0.1959	0.1351	0.108
Endogenous	α	δ_0	β^{+}	Ω	$\hat{R}_A^{+}{}_{(i)}(1-\beta^{+})$	$\hat{x}^{+}{}_{(i)}/\hat{g}y^{+}{}_{(i)}$	$\hat{r}^{+}{}_{(i)}/\Omega$	$\hat{r}^{+}{}_{(i)}/\alpha/\Omega$	$\hat{r}^{+}{}_{(i)}/PRI/\alpha/\Omega$	δ_0/α
9. Kazakhstan						$\hat{x}^{+}{}_{(i)}/(1-\beta^{+})$		G	PRI	
1990										
1991										
1992										
1993										
1994										
1995	0.0965	0.2162	0.4057	0.7415	0.0886	1.5950	0.1301	0.1308	0.1298	2.241
1996	0.0974	0.2313	0.3719	0.6685	0.0669	2.4601	0.1457	0.0969	0.1730	2.374
1997	0.1181	0.2161	0.3748	0.6695	0.0660	2.9850	0.1764	0.1082	0.2240	1.830
1998	0.1409	0.2901	0.3952	0.7393	0.0539	3.9977	0.1906	0.1054	0.2680	2.058
1999	0.0927	0.3208	0.3537	0.6641	0.0446	3.8004	0.1396	0.1154	0.1685	3.461
2000	0.1471	0.0113	0.3792	0.6142	0.0472	5.1038	0.2395	0.1202	0.3827	0.077
2001	0.1330	(0.5255)	0.4374	0.6809	0.0933	1.8343	0.1953	0.0595	0.3047	(3.951)
2002	0.1816	(0.7907)	0.4683	0.7969	0.0960	2.1468	0.2278	0.1034	0.3076	(4.355)
2003	0.1958	(0.7634)	0.4665	0.7893	0.0812	2.7567	0.2480	0.1735	0.2977	(3.900)
2004	0.2243	(1.2049)	0.4688	0.7590	0.0881	2.8864	0.2955	0.1901	0.3635	(5.372)
2005	0.2691	(1.7778)	0.4792	0.7937	0.1102	2.6521	0.3390	0.2185	0.4057	(6.608)
2006	0.3271	(2.2564)	0.4873	0.8477	0.1309	2.6284	0.3859	0.2925	0.4334	(6.897)
2007	0.3386	1.0483	0.5931	0.9820	0.1310	1.7732	0.3448	0.1303	0.4292	3.096
2008	0.3927	1.0802	0.6077	0.9655	0.0811	3.1270	0.4067	0.3239	0.4341	2.751
2009	0.2940	0.6450	0.6573	1.2602	0.0816	1.8793	0.2333	0.1101	0.2725	2.194
Neutrality c	$m_K=M/K$	$m_Y=M/Y$	$m_I=M/I$	$\hat{r}_{(DEBT)}-\hat{r}^{+}{}_{(i)}$	$(e_{(US)}/\hat{g}y^{+}{}_{(i)})^{+}{}_{(i)}$	$\hat{r}^{+}{}_{(i)}-\hat{r}^{+}{}_{(i)}(US)$	$\hat{e}^{+}{}_{(US)}$	$\hat{e}_{(US)}/\hat{e}^{+}{}_{(US)}$	$\hat{e}_{(US)}/PRI$	$\hat{e}_{(US)}/y^{+}{}_{(i)}$
9. Kazakhstan					$\hat{g}y^{+}{}_{(i)}-\hat{g}y^{+}{}_{(i)}/\hat{g}y^{+}{}_{(i)}(US)$	$\hat{e}^{+}{}_{(US)}-\hat{e}_{(US)}+(r^{+}{}_{(i)}-\hat{r}^{+}{}_{(i)}(US))$	$y^{+}{}_{(i)}-\hat{y}^{+}{}_{(i)}/\hat{y}^{+}{}_{(i)}(US)$			
1990										
1991										
1992										
1993										
1994										
1995	0.1648	0.1222	1.2670	(0.1301)	0.0000	7.63	0.0715	64.02	0.9989	10.44
1996	0.1675	0.1120	1.1496	(0.1457)	0.0000	14.39	0.0895	73.39	0.9988	8.78
1997	0.1750	0.1172	0.9923	(0.1764)	0.0000	18.20	0.1242	75.67	0.9984	7.86
1998	0.1322	0.0977	0.6933	(0.1906)	0.0000	30.76	0.1404	83.94	0.9983	5.99
1999	0.2184	0.1450	1.5646	(0.1396)	0.0000	83.15	0.0904	138.29	0.9993	8.11
2000	0.2774	0.1703	1.1579	(0.2395)	0.0000	85.95	0.1894	144.69	0.9987	22.62
2001	0.2942	0.2003	1.5059	(0.1953)	0.0000	33.57	0.1361	150.34	0.9991	35.91
2002	0.2959	0.2358	1.2988	(0.2278)	0.0000	22.07	0.1513	154.75	0.9990	33.44
2003	0.2288	0.1806	0.9224	(0.2480)	0.0000	22.23	0.1645	144.38	0.9989	25.31
2004	0.3031	0.2301	1.0258	(0.2955)	0.0000	20.55	0.2085	130.21	0.9984	22.64
2005	0.2867	0.2275	0.8457	(0.3390)	0.0000	14.92	0.2423	134.22	0.9982	20.81
2006	0.3719	0.3152	0.9636	(0.3859)	0.0000	16.30	0.3032	127.30	0.9976	18.16
2007	0.3156	0.3099	0.9151	(0.3448)	0.0000	17.77	0.2762	120.58	0.9977	#####
2008	0.3224	0.3113	0.7928	(0.4067)	0.0000	20.87	0.3324	121.12	0.9973	#####
2009	0.2970	0.3743	1.2729	(0.2333)	0.0000	23.03	0.1649	148.62	0.9989	0.80

Data source: KEWT 5.11–4 for 19 Rest Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A4–1 Pakistan: Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + \text{PRI} = \text{bop}$, the rate of change population and unemployment

Cost of capit	$\text{HA}^*_{\text{r}(t)}$	$\text{r}^* - \text{HA}^*_{\text{r}(t)}$	$\text{v}^* - \text{r}^* / \text{G}^* - \text{v}^*$	$\text{CC}^*_{\text{REAL}}$	$\text{CC}^*_{\text{REAL(G)}}$	$\text{CC}^*_{\text{REAL(PRI)}}$	$\text{CC}^*_{\text{NOMINAL}}$	$\text{CC}^*_{\text{NOMIG(G)}}$	$\text{CC}^*_{\text{NOMIG(P)}}$
11. Pakistan	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990	0.0890	0.1257	1.3116	0.0959	(0.2017)	0.1966	0.1638	(0.8139)	0.2576
1991	0.1564	0.0013	1.4376	0.0009	(0.2172)	0.1257	0.1097	(0.9533)	0.2278
1992	0.1599	0.0013	1.7086	0.0006	(4.1480)	0.0924	0.0942	(0.5316)	0.2168
1993	0.1842	0.0010	1.6336	0.0006	(0.0604)	0.1322	0.1134	(0.4709)	0.2465
1994	0.1516	0.0009	1.7410	0.0005	(0.0617)	0.0948	0.0876	(0.3624)	0.2092
1995	0.1349	0.0007	2.4967	0.0003	(0.0506)	0.0512	0.0543	(0.2934)	0.1525
1996	0.1347	0.0007	2.5566	0.0003	(0.0567)	0.0580	0.0529	(0.3211)	0.1752
1997	0.1486	0.0008	1.9862	0.0004	(0.0510)	0.0857	0.0752	(0.2778)	0.2018
1998	0.1133	0.0007	2.5257	0.0003	(0.0431)	0.0535	0.0451	(0.2118)	0.1399
1999	0.0807	0.0471	2.2404	0.0210	(0.0324)	0.1082	0.0570	(0.1949)	0.1793
2000	0.1392	0.0009	1.7524	0.0005	(0.0259)	0.0770	0.0800	(0.1369)	0.1728
2001	0.1356	0.0009	1.7441	0.0005	(0.0187)	0.0711	0.0783	(0.1030)	0.1550
2002	0.0737	0.0409	2.3031	0.0178	(0.0227)	0.0494	0.0498	(0.0794)	0.1276
2003	0.1188	0.0009	1.8085	0.0005	(0.0204)	0.0498	0.0662	(0.0773)	0.1310
2004	0.1196	0.0009	1.8589	0.0005	(0.0146)	0.0390	0.0648	(0.0517)	0.1128
2005	0.1116	0.0006	2.7126	0.0002	(0.0176)	0.0266	0.0414	(0.0872)	0.0900
2006	0.1105	0.0005	5.0020	0.0001	(0.0546)	0.0183	0.0222	(0.1443)	0.0939
2007	0.1066	(0.0049)	5.6005	(0.0009)	(0.0237)	0.0142	0.0182	(0.1225)	0.0602
2008	0.1232	0.0426	2.0466	0.0208	(0.0452)	0.0645	0.0810	(0.2320)	0.2251
2009	0.1534	(0.0010)	1.6646	(0.0006)	(0.0201)	0.0800	0.0915	(0.1442)	0.1789
Speed and,	$1/\lambda^*$	$1/\lambda^*_{\text{G}}$	$1/\lambda^*_{\text{PRI}}$	$\dot{\lambda}^*_{\text{actual}}$	$\dot{\lambda}^*_{\text{endogenous}}$	difference	Δd	$\text{SPRI} - \text{bop}$	bop
11. Pakistan	in equilibria	G	PRI	actual	endogenous		G	PRI	TOTAL
1990	66.04	6.22	45.89	0.1255	0.0519	0.0736	(0.0602)	0.0474	(0.0128)
1991	17.28	6.67	115.15	0.1275	0.0735	0.0541	(0.0843)	0.0931	0.0088
1992	12.41	(2.66)	(26.01)	0.1331	0.1022	0.0309	(0.0880)	0.0643	(0.0236)
1993	9.81	2.20	236.45	0.1418	0.1119	0.0299	(0.0992)	0.0393	(0.0599)
1994	11.69	4.06	(27.08)	0.1285	0.1027	0.0258	(0.0808)	0.0529	(0.0279)
1995	9.96	5.09	0.66	0.1127	0.1287	(0.0160)	(0.0703)	0.0495	(0.0208)
1996	8.49	4.42	(2.53)	0.1173	0.1348	(0.0175)	(0.0857)	0.0336	(0.0521)
1997	7.58	4.86	(19.33)	0.1057	0.1227	(0.0170)	(0.0844)	0.0252	(0.0592)
1998	7.40	6.70	(11.38)	0.0898	0.1187	(0.0289)	(0.0695)	0.0484	(0.0211)
1999	121.57	6.24	102.07	0.0811	0.0987	(0.0176)	(0.0742)	0.0474	(0.0268)
2000	9.92	8.77	(7.35)	0.0846	0.0997	(0.0151)	(0.0502)	0.0223	(0.0279)
2001	9.23	10.35	(8.64)	0.0830	0.0977	(0.0147)	(0.0414)	0.0155	(0.0259)
2002	540.08	15.09	(1.89)	0.0763	0.0904	(0.0141)	(0.0310)	0.0357	0.0048
2003	8.88	14.69	(1.53)	0.0745	0.0919	(0.0174)	(0.0303)	0.0693	0.0390
2004	9.51	17.56	1.55	0.0781	0.0950	(0.0169)	(0.0266)	0.0549	0.0342
2005	7.17	12.05	3.19	0.1053	0.1225	(0.0171)	(0.0339)	0.0148	(0.0191)
2006	3.76	15.50	2.02	0.1393	0.1563	(0.0170)	(0.0447)	0.0190	(0.0637)
2007	5.78	9.99	(1.53)	0.1459	0.1564	(0.0166)	(0.0444)	0.0124	(0.0568)
2008	120.39	6.37	(21.05)	0.1468	0.1306	0.0163	(0.0808)	0.0169	(0.0977)
2009	5.27	7.81	(34.59)	0.1154	0.1043	0.0111	(0.0535)	0.0019	(0.0516)
Unemployment	n	$\text{DEQUIG} - n$	$\text{DEQUIPRI} - n$	$\text{DEQUI} - n$	$\text{DEQUIG} - \text{DE}$	$\text{DEQUIPRI} - \text{DE}$	Unem rate (act)	$\text{GCP}(\text{actual})$	Infla. rate
11. Pakistan	under attaining equilibrium			under the same wage rate by sector			actual, to population		
1990	0.0299	0.0000	0.0000	0.0000	0.0000	0.0000	(0.0140)	0.0889	(0.0452)
1991	0.0300	0.0000	0.0000	(0.0296)	0.1054	(0.0259)	(0.0284)	0.1190	0.0775
1992	0.0299	(0.2599)	0.0000	(0.0295)	(0.1609)	(0.0213)	(0.0266)	0.0942	0.0757
1993	0.0299	0.0000	0.0000	(0.0295)	(0.0457)	0.0087	(0.0212)	0.1000	0.0730
1994	0.0278	0.0000	0.0000	(0.0274)	0.1009	(0.0202)	(0.0216)	0.1237	0.0698
1995	0.0277	0.0000	0.0000	(0.0273)	0.0920	(0.0163)	(0.0243)	0.1236	0.1293
1996	0.0274	0.0000	0.0000	(0.0270)	(0.1021)	0.0162	(0.0243)	0.1035	0.1293
1997	0.0297	0.0000	0.0000	(0.0293)	0.0382	(0.0068)	(0.0275)	0.1131	0.1297
1998	0.0265	0.0000	0.0000	(0.0261)	0.0746	(0.0127)	(0.0266)	0.0624	0.0472
1999	0.0261	0.0000	0.0000	0.0000	0.0712	(0.0111)	(0.0266)	0.0413	(0.0055)
2000	0.0250	0.0000	0.0000	(0.0246)	0.1400	(0.0201)	(0.0351)	0.0438	0.0407
2001	0.0240	0.0000	0.0000	(0.0236)	0.1119	(0.0136)	(0.0351)	0.0310	0.0471
2002	0.0231	0.0000	0.0000	0.0000	(0.0856)	0.0091	(0.0374)	0.0330	0.7521
2003	0.0226	0.0000	0.0000	(0.0222)	0.0179	(0.0021)	(0.0374)	0.0291	0.0332
2004	0.0222	0.0000	0.0000	(0.0218)	0.0651	(0.0074)	(0.0347)	0.0748	0.0454
2005	0.0222	0.0000	0.0000	(0.0218)	0.0490	(0.0052)	(0.0347)	0.0905	0.0613
2006	0.0220	0.0000	0.0000	(0.0216)	(0.3904)	0.0393	(0.0279)	0.0790	0.0842
2007	0.0219	0.0000	0.0000	(0.0259)	0.1506	(0.0218)	(0.0239)	0.0760	0.0999
2008	0.0218	0.0000	0.0000	0.0000	(0.4979)	0.0601	(0.0234)	0.2033	0.0740
2009	0.0218	0.0000	0.0000	(0.0222)	0.3904	(0.0745)	0.0000	0.1360	0.13

Data source: KEWT 5.11–4 for 19 Rest Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A4–2 Pakistan: Robustness, endogenous parameters and variables, and neutrality of the financial/market assets to the real assets, using M2, ten year debt yield, and the exchange rate

Robustness	$HA_{0-}^{+}(\cdot)$	$HA_{0-}^{+}(\cdot)_{(G)}$	$HA_{0-}^{+}(\cdot)_{(PR)}$	$HA_{0-}^{+}(\cdot)_{(PR)}$	$HA_{0-}^{+}(\cdot)_{(G)}$	$HA_{0-}^{+}(\cdot)_{(PR)}$	$Width_{(G)}$	$Width_{(G)}(\cdot)_{(G)}$	$Width_{(G)}(\cdot)_{(PR)}$	$Width_{(G)}(\cdot)_{(PR)}$
11. Pakistan										
1990	0.4474	0.2538	0.4805	1.3244	0.5694	2.9941	0.3448	0.1764	0.5800	0.213
1991	0.4152	0.3177	0.4407	0.6436	0.9314	1.4037	0.0199	0.2630	0.3044	0.031
1992	0.4168	0.3383	0.4271	0.6445	(0.1555)	1.0448	0.0199	0.2617	0.2403	0.031
1993	0.4423	0.5142	0.4343	0.6951	1.5608	1.3124	0.0209	0.3642	0.2872	0.030
1994	0.4368	0.5704	0.4127	0.6975	2.0970	1.0551	0.0211	0.4455	0.2345	0.030
1995	0.4290	0.6039	0.3947	0.6850	2.2304	0.8312	0.0209	0.4614	0.1967	0.030
1996	0.4521	0.6190	0.4149	0.7455	2.6051	0.8759	0.0221	0.5290	0.2020	0.030
1997	0.4670	0.6623	0.4193	0.7787	2.9952	1.0234	0.0228	0.6145	0.2365	0.029
1998	0.4762	0.6944	0.4201	0.8283	3.3895	0.9954	0.0240	0.6416	0.2207	0.029
1999	0.4932	0.7385	0.4146	1.3395	3.6878	1.5095	0.2776	0.6775	0.3043	0.207
2000	0.4641	0.7569	0.3817	0.7772	3.8054	0.9546	0.0228	0.6752	0.2079	0.029
2001	0.4705	0.7891	0.3778	0.7975	4.0394	0.9753	0.0232	0.6903	0.2077	0.029
2002	0.4825	0.7775	0.3880	1.2829	4.7594	0.9063	0.2537	0.7945	0.1933	0.198
2003	0.4774	0.7791	0.3893	0.8295	4.5645	0.8990	0.0240	0.7536	0.1896	0.029
2004	0.4732	0.7831	0.3872	0.8161	4.4851	0.8516	0.0237	0.7325	0.1812	0.029
2005	0.4766	0.7907	0.3917	0.8306	4.2666	0.8104	0.0240	0.6995	0.1747	0.029
2006	0.4875	0.7159	0.4279	0.8641	5.0383	0.7891	0.0247	0.8346	0.1687	0.029
2007	0.5020	0.7528	0.4418	0.8756	3.7961	0.9050	0.0791	0.6317	0.1878	0.090
2008	0.5272	0.6910	0.4741	1.2437	3.6870	0.9770	0.2369	0.6344	0.1929	0.190
2009	0.4890	0.7754	0.4139	0.8301	3.7698	1.0812	0.0238	0.6223	0.2132	0.029
Endogenous	α	δ_0	β^+	Ω	$\beta_0^+ = (1-\beta^+)$	$X = r^+ / gY^+$	$r^+ = \alpha / \Omega$	$r^+ = \alpha / \Omega$	$r^+ = \alpha / \Omega$	$\delta_0 \alpha$
11. Pakistan										
1990	0.1444	1.5926	0.6614	0.6726	0.0176	4.2095	0.2148	(0.6934)	0.2967	11.026
1991	0.1007	(0.3438)	0.4172	0.6383	0.0428	3.2850	0.1577	(0.8217)	0.2821	(3.415)
1992	0.1031	(0.3489)	0.4182	0.6406	0.0595	2.4113	0.1609	(0.5611)	0.2869	(3.385)
1993	0.1280	(0.6319)	0.4437	0.6912	0.0623	2.5783	0.1852	(0.2380)	0.3022	(4.935)
1994	0.1058	(0.4772)	0.4383	0.6932	0.0577	2.3494	0.1526	(0.1993)	0.2705	(4.512)
1995	0.0924	(0.3638)	0.4302	0.6816	0.0734	1.6681	0.1355	(0.1325)	0.2351	(3.939)
1996	0.1004	(0.5923)	0.4533	0.7419	0.0737	1.6424	0.1353	(0.1661)	0.2579	(5.900)
1997	0.1157	(1.0164)	0.4684	0.7745	0.0652	2.0140	0.1494	(0.1161)	0.2718	(8.784)
1998	0.0939	(1.1720)	0.4777	0.8235	0.0620	1.6555	0.1140	(0.0814)	0.2093	(12.484)
1999	0.1081	1.3865	0.6064	0.8461	0.0388	1.8062	0.1278	(0.0382)	0.2225	12.837
2000	0.1082	(0.8864)	0.4658	0.7721	0.0533	2.3291	0.1401	(0.0050)	0.2289	(8.194)
2001	0.1082	(1.0926)	0.4722	0.7920	0.0516	2.3439	0.1366	0.0289	0.2073	(10.101)
2002	0.0946	1.5175	0.5918	0.8252	0.0369	1.7674	0.1146	0.0015	0.1873	16.044
2003	0.0985	(1.3474)	0.4793	0.8233	0.0478	2.2369	0.1197	0.0080	0.1903	(13.676)
2004	0.0976	(1.1020)	0.4750	0.8102	0.0499	2.1643	0.1205	0.0273	0.1771	(11.288)
2005	0.0927	(1.1757)	0.4780	0.8259	0.0639	1.5839	0.1123	0.0230	0.1650	(12.680)
2006	0.0955	(2.3199)	0.4887	0.8602	0.0799	1.2499	0.1110	(0.0862)	0.2070	(24.298)
2007	0.0934	(1.2156)	0.4903	0.9174	0.0797	1.2174	0.1018	(0.0091)	0.1533	(13.019)
2008	0.1532	1.1940	0.6001	0.9243	0.0522	1.9555	0.1658	(0.1201)	0.3011	7.793
2009	0.1273	(2.5589)	0.4874	0.8355	0.0535	2.5046	0.1524	0.0123	0.2276	(20.101)
Neutrality c	$m_K = M/K$	$m^+ = M/Y$	$m_1 = M/\Pi$	$r_{(DEBT)} = r^+$	$r_{(DEBT)} = r^+$	$(e_{US})/gY^{++}$	$r^+ = r^+ (US)$	$e^+ (US)$	$e_{(US)} e^+ (US)$	$e_{(US)} / y^{++}$
11. Pakistan										
1990	0.6482	0.4359	3.0180	(0.1343)	0.3748	6.386	0.1410	21.99	0.9936	29.06
1991	0.6823	0.4355	4.3255	(0.0789)	0.4996	2.395	0.0904	24.75	0.9963	41.96
1992	0.7414	0.4750	4.6085	(0.0842)	0.4767	1.529	0.0875	25.72	0.9966	38.08
1993	0.7340	0.5074	3.9629	(0.1112)	0.3995	4.334	0.1187	30.16	0.9961	69.25
1994	0.7339	0.5088	4.8103	(0.0819)	0.4634	7.172	0.0878	30.81	0.9972	75.44
1995	0.6775	0.4618	4.9986	(0.0055)	0.9591	4.960	0.0770	34.33	0.9978	60.32
1996	0.6656	0.4938	4.9191	(0.0053)	0.9607	7.119	0.0791	40.20	0.9980	82.82
1997	0.6717	0.5203	4.961	(0.0189)	0.8735	10.77	0.0973	44.15	0.9978	100.41
1998	0.6201	0.5106	5.4390	(0.0661)	0.4202	15.45	0.0637	45.95	0.9986	118.97
1999	0.5714	0.4834	4.4721	(0.0862)	0.3256	35.14	0.0786	51.86	0.9985	1.31
2000	0.5579	0.4307	3.9818	(0.0985)	0.2969	31.97	0.0900	58.12	0.9985	133.39
2001	0.5465	0.4328	4.0015	(0.0886)	0.3515	25.30	0.0773	60.94	0.9987	132.65
2002	0.5643	0.4656	4.9228	0.6784	6.9184	24.04	0.0381	58.57	0.9993	0.00
2003	0.5937	0.4888	4.9613	(0.0856)	0.2850	16.78	0.0361	57.25	0.9994	113.81
2004	0.6303	0.5107	5.2310	(0.0742)	0.3842	19.20	0.0335	59.16	0.9994	113.61
2005	0.6307	0.5209	5.6175	(0.0504)	0.5514	14.27	0.0156	59.85	0.9997	109.90
2006	0.5917	0.5089	5.3302	(0.0263)	0.7631	17.22	0.0283	60.95	0.9995	137.00
2007	0.5867	0.5382	5.7644	(0.0068)	0.9335	20.37	0.0331	61.25	0.9995	110.47
2008	0.5325	0.4922	3.2123	(0.0492)	0.7034	29.59	0.0914	79.19	0.9988	0.14
2009	0.5347	0.4468	3.5096	(0.0274)	0.8204	24.65	0.0840	84.35	0.9990	113.54

Data source: KEWT 5.11–4 for 19 Rest Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A5–1 Bangladesh: Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + \text{PRI} = \text{bop}$, the rate of change population and unemployment

Cost of capit	HA_{t+1}	$r^* - \text{HA}_{t+1}$	$v^* - r^* / G^* - \text{bop}$	$\text{CC}^*_{\text{REAL}}$	$\text{CC}^*_{\text{REAL(G)}}$	$\text{CC}^*_{\text{REAL(PRI)}}$	$\text{CC}^*_{\text{NOMINAL}}$	$\text{CC}^*_{\text{NOMIG}}$	$\text{CC}^*_{\text{NOMIG(P)}}$
max. endo. in	REAL	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990	0.2372	(0.0342)	1.4129	(0.0242)	0.0000	0.0444	0.1436	0.1527	0.0682
1991	0.1733	(0.0243)	1.6982	(0.0143)	0.0000	0.0149	0.0877	0.3668	0.0265
1992	0.1653	(0.0259)	1.6303	(0.0159)	0.0001	0.0237	0.0855	(53.5444)	0.0381
1993	0.0889	0.1148	1.2803	0.0897	0.0019	(0.0129)	0.1591	(15.7336)	0.1550
1994	0.0834	0.0711	1.6143	0.0440	0.0285	0.0619	0.0957	0.5486	0.0666
1995	0.1062	0.0817	1.4332	0.0570	0.0090	0.0956	0.1311	0.1175	0.1246
1996	0.0983	0.0508	2.0234	0.0251	0.0076	0.0294	0.0737	0.0878	0.0560
1997	0.0739	0.0390	3.4585	0.0113	0.0021	0.0047	0.0327	0.0232	0.0077
1998	0.0671	0.0351	4.8612	0.0072	0.0030	(0.0016)	0.0210	0.0241	(0.0030)
1999	0.0674	0.0294	6.1768	0.0048	0.0003	(0.0031)	0.0157	0.0165	(0.0070)
2000	0.0715	0.0345	2.1459	0.0161	0.0002	0.0303	0.0494	0.0056	0.0448
2001	0.0734	0.1060	1.2032	0.0881	(0.0031)	0.1853	0.1491	(0.0151)	0.2271
2002	0.0520	0.1053	1.1994	0.0878	(0.0016)	0.1468	0.1312	(0.0031)	0.1986
2003	0.0733	0.0246	3.2468	0.0076	0.0019	0.0036	0.0301	0.0129	0.0345
2004	0.0734	0.0225	3.7838	0.0059	(0.0007)	0.0036	0.0253	(0.0053)	0.0356
2005	0.0748	0.0188	6.4336	0.0029	(0.0020)	0.0021	0.0145	(0.0160)	0.0255
2006	0.0731	0.0203	4.0393	0.0050	(0.0029)	0.0042	0.0231	(0.0241)	0.0400
2007	0.0741	0.0200	3.7727	0.0053	(0.0025)	0.0045	0.0250	(0.0212)	0.0423
2008	0.0761	0.0195	3.7138	0.0053	(0.0014)	0.0039	0.0257	(0.0115)	0.0384
2009	0.0740	0.0221	2.6899	0.0082	0.0003	0.0058	0.0357	0.0022	0.0466
Speed and,	$1/\lambda^*$	$1/\lambda_{G^*}$	$1/\lambda_{\text{PRI}^*}$	I_{actual}	$\text{I}_{\text{endoge.}}$	difference	Δd	$\text{SPRI} - \text{I}_{\text{PRI}}$	bop
6. Banglades	G	PRI		actual	endogenous		G	PRI	TOTAL
1990	20.30	(9.69)	41.16	0.0000	0.1011	(0.1011)	(0.0084)	(0.0502)	(0.0586)
1991	21.25	(12.01)	42.03	0.0000	0.1088	(0.1088)	(0.0047)	(0.0326)	(0.0373)
1992	26.93	(0.00)	44.90	0.0000	0.0989	(0.0989)	(0.0103)	(0.0148)	(0.0251)
1993	59.55	2.33	90.26	0.0000	0.0518	(0.0518)	(0.0089)	(0.0174)	(0.0262)
1994	76.57	0.04	40.41	0.0000	0.0743	(0.0743)	0.0012	(0.0201)	(0.0189)
1995	100.02	154.71	48.73	0.0000	0.0721	(0.0721)	(0.0047)	(0.0326)	(0.0374)
1996	238.32	22.00	64.66	0.0000	0.1058	(0.1058)	(0.0013)	(0.0501)	(0.0514)
1997	99.33	18.43	47.78	0.0000	0.1162	(0.1162)	(0.0084)	(0.0219)	(0.0303)
1998	65.21	18.64	72.49	0.1395	0.1208	0.0188	(0.0042)	(0.0143)	(0.0185)
1999	58.27	20.51	288.46	0.1545	0.1276	0.0269	(0.0051)	(0.0169)	(0.0220)
2000	58.38	21.21	66.59	0.1705	0.0907	0.0798	(0.0066)	(0.0112)	(0.0178)
2001	66.88	27.09	71.49	0.1823	0.0418	0.1405	(0.0079)	(0.0239)	(0.0318)
2002	67.87	41.32	75.49	0.1796	0.0331	0.1464	(0.0021)	(0.0001)	(0.0022)
2003	123.76	22.39	12.50	0.1691	0.1092	0.0599	(0.0013)	(0.0020)	(0.0034)
2004	92.85	19.94	11.76	0.1773	0.1166	0.0607	(0.0080)	0.0071	(0.0009)
2005	64.48	18.86	9.84	0.1833	0.1360	0.0474	(0.0123)	(0.0026)	(0.0149)
2006	61.68	18.18	11.10	0.1846	0.1206	0.0640	(0.0158)	0.0188	0.0030
2007	65.42	18.86	11.76	0.1829	0.1188	0.0641	(0.0147)	0.0206	0.0060
2008	79.35	20.58	12.54	0.1808	0.1193	0.0615	(0.0105)	0.0155	0.0050
2009	90.42	23.40	14.64	0.1811	0.1010	0.0801	(0.0045)	0.0261	0.0216
Unemployment	n	$\text{I}_{\text{EQUIG}} - \text{n}$	$\text{I}_{\text{EQUIPRI}} - \text{n}$	$\text{I}_{\text{EQUIG}} - \text{n}$	$\text{I}_{\text{EQUIG}} - \text{n}$	$\text{I}_{\text{EQUIPRI}} - \text{n}$	Unem. rate (act)	$\text{GCP}(\text{actual})$	Infla. rate
6. Banglades	under attaining equilibrium			under the same wage rate by sector			actual, to population		
1990	0.0278	(0.0279)	0.0000	0.0000	0.0000	(0.0086)	0.0620	0.1942	
1991	0.0277	(0.0278)	0.0000	(0.0377)	0.0336	(0.0035)	0.0000	0.0636	0.1835
1992	0.0258	(0.0259)	0.0000	(0.0358)	(0.0900)	0.0034	0.0000	0.0354	0.1759
1993	0.0251	(0.0252)	(0.0255)	0.0000	(0.2601)	(0.0122)	0.0000	0.0306	0.0352
1994	0.0270	0.0000	0.0000	0.0000	0.0820	(0.0058)	0.0000	0.0526	0.0739
1995	0.0247	0.0000	0.0000	0.0000	0.0006	(0.0000)	0.0000	0.0858	0.0583
1996	0.0257	0.0000	0.0000	0.0000	0.0772	(0.0050)	(0.0113)	0.0410	0.0892
1997	0.0277	0.0000	0.0000	0.0000	0.0612	(0.0036)	0.0000	0.0173	0.1010
1998	0.0279	0.0000	0.0000	0.0000	(0.0788)	0.0044	0.0000	0.0689	0.1049
1999	0.0246	(0.0206)	0.0000	0.0000	0.0107	(0.0019)	0.0000	0.0621	0.1119
2000	0.0184	(0.0134)	0.0000	0.0000	(0.0664)	0.0031	(0.0194)	0.0213	0.1205
2001	0.0179	(0.0059)	0.0000	0.0000	(0.1692)	0.0100	0.0000	0.0208	0.0523
2002	0.0175	0.0000	0.0000	0.0000	(0.0463)	0.0033	0.0000	0.0332	0.0547
2003	0.0170	0.0000	(0.0120)	0.0000	0.0784	(0.0179)	(0.0194)	0.0568	0.1354
2004	0.0165	0.0000	(0.0115)	0.0000	(0.0353)	(0.0091)	0.0000	0.0911	0.1250
2005	0.0159	0.0000	(0.0109)	0.0000	(0.0031)	(0.0106)	0.0000	0.0204	0.1212
2006	0.0153	0.0000	(0.0103)	0.0000	(0.0013)	(0.0102)	(0.0189)	0.0680	0.1330
2007	0.0147	0.0000	(0.0097)	0.0000	0.0020	(0.0099)	0.0000	0.0908	0.1400
2008	0.0143	0.0000	(0.0093)	0.0000	0.0450	(0.0125)	0.0000	0.0893	0.1443
2009	0.0139	0.0000	(0.0089)	0.0000	0.0186	(0.0101)	0.0000	0.0536	0.1239

Data source: KEWT 5.11–1 for 17 Europe Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A5–2 Bangladesh: Robustness, endogenous parameters and variables, and neutrality of the financial/market assets to the real assets, using M2, ten year debt yield, and the exchange rate

Robustness	$HA_{\Omega}^{+}(\cdot)$	$HA_{\Omega}^{+}(\cdot)_{(G)}$	$HA_{\Omega}^{+}(\cdot)_{(PRI)}$	$HA_{\Omega}^{+}(\cdot)_{(G)}$	$HA_{\Omega}^{+}(\cdot)_{(PRI)}$	$Width_{\Omega}(\cdot)$	$Width_{\Omega}(\cdot)_{(G)}$	$Width_{\Omega}(\cdot)_{(PRI)}$	$WidHA_{\Omega}(\cdot)$
6. Bangladesh									
1990	0.4425	1.3539	0.5223	0.5900	(1.9606)	2.7256	0.0928	0.0169	0.5219
1991	0.4470	1.7059	0.5038	0.6257	(1.2071)	2.0983	0.0977	0.0092	0.4177
1992	0.4587	(47.0036)	0.4961	0.6449	(0.5207)	2.3681	0.0999	0.0008	0.4471
1993	0.4968	(0.0445)	0.5083	1.8444	(0.0261)	0.8192	0.3511	0.0012	0.0234
1994	0.4851	0.4848	0.4852	1.4883	0.4884	12.1074	0.3070	0.1138	2.0636
1995	0.4915	0.6353	0.4783	1.4179	1.0516	3.3719	0.2805	0.2044	0.5933
1996	0.4964	0.7352	0.4680	1.2752	1.4508	1.6552	0.2641	0.2681	0.3293
1997	0.4989	0.8047	0.4511	1.3337	1.9026	1.9919	0.2859	0.3500	0.4019
1998	0.5074	0.8242	0.4475	1.3847	2.4335	1.5706	0.2959	0.4427	0.3313
1999	0.5190	0.8489	0.4471	1.3721	2.5881	1.3806	0.2761	0.1774	0.2808
2000	0.5355	0.8665	0.4505	1.4985	3.1235	2.3471	0.2563	0.2368	0.3766
2001	0.5691	0.8691	0.4833	2.5726	6.4079	4.0550	0.3939	0.7428	0.5936
2002	0.5444	0.8531	0.4586	2.9067	9.6332	2.6952	0.4482	1.3288	0.4079
2003	0.5144	0.8500	0.4224	1.2523	3.8549	0.7652	0.3151	0.5391	0.0807
2004	0.5208	0.8515	0.4268	1.2665	3.9773	0.7739	0.2125	0.5483	0.0813
2005	0.5304	0.8571	0.4352	1.2597	4.1162	0.7855	0.2073	0.5548	0.0822
2006	0.5333	0.8623	0.4337	1.3016	4.2618	0.7995	0.2089	0.5627	0.0832
2007	0.5325	0.8652	0.4290	1.2895	4.3632	0.7844	0.2035	0.5647	0.0821
2008	0.5281	0.8706	0.4211	1.2540	4.3679	0.7587	0.1959	0.5548	0.0802
2009	0.5251	0.8738	0.4146	1.2818	4.4656	0.7587	0.1967	0.5582	0.0802
Endogenous	α	δ_0	β^*	Ω	$\alpha_{\Omega}^{+}=(1-\beta^*)$	$\alpha_{\Omega}^{+}=(1-\beta^*)$	$\alpha_{\Omega}^{+}=(1-\beta^*)$	$\alpha_{\Omega}^{+}=(1-\beta^*)$	$\alpha_{\Omega}^{+}=(1-\beta^*)$
6. Bangladesh									
1990	0.1399	0.0391	0.4045	0.6895	0.0602	3.4221	0.2029	(0.2488)	0.1109
1991	0.1084	0.1276	0.4100	0.7279	0.0642	2.4322	0.1490	(0.4148)	0.0758
1992	0.1066	0.2010	0.4168	0.7646	0.0577	2.5865	0.1394	(0.8994)	0.0794
1993	0.1640	1.2656	0.6934	0.8051	0.0159	4.5677	0.2037	(14.9021)	0.1598
1994	0.1241	1.3928	0.6357	0.8035	0.0271	2.6280	0.1545	1.0685	0.0956
1995	0.1505	1.4126	0.6310	0.8014	0.0266	3.3082	0.1878	0.4412	0.1568
1996	0.1254	1.4312	0.5997	0.8497	0.0424	1.9771	0.1491	3.8850	0.1058
1997	0.0986	1.3237	0.6033	0.8731	0.0461	1.4068	0.1129	3.3286	0.0528
1998	0.0929	1.2119	0.6108	0.9090	0.0470	1.2590	0.1022	0.2497	0.0509
1999	0.0925	1.1034	0.6077	0.9558	0.0500	1.1932	0.0968	0.2155	0.0478
2000	0.1072	0.9804	0.6309	1.0106	0.0335	1.8727	0.1061	0.1751	0.0721
2001	0.1888	0.9565	0.7635	1.0523	0.0099	5.9224	0.1794	0.0436	0.2491
2002	0.1560	1.0071	0.7832	0.9910	0.0072	6.0140	0.1574	0.0320	0.2223
2003	0.0925	1.1626	0.5858	0.9452	0.0452	1.4451	0.0978	0.1260	0.0829
2004	0.0930	1.0875	0.5867	0.9698	0.0482	1.3592	0.0959	0.1145	0.0857
2005	0.0943	0.9797	0.5856	1.0071	0.0563	1.1840	0.0936	0.1089	0.0851
2006	0.0951	0.9513	0.5936	1.0186	0.0490	1.3290	0.0934	0.1042	0.0871
2007	0.0956	0.9596	0.5913	1.0150	0.0486	1.3607	0.0942	0.1022	0.0893
2008	0.0954	1.0060	0.5844	0.9979	0.0496	1.3685	0.0956	0.1090	0.0872
2009	0.0948	1.0362	0.5894	0.9870	0.0415	1.5917	0.0960	0.1104	0.0867
Neutrality c	$m_K=M/K$	$m_M=M/Y$	$m_I=M/\Pi$	$f_{(DEBT)}=r^*$	$f_{(DEBT)}=r^*$	$f_{(DEBT)}=r^*$	$f_{(DEBT)}=r^*$	$f_{(DEBT)}=r^*$	$f_{(DEBT)}=r^*$
6. Bangladesh									
1990	0.3727	0.2570	1.8363	(0.0429)	0.7884	3.07	0.1292	35.92	0.9964
1991	0.3602	0.2622	2.4177	0.0102	1.0685	2.48	0.0817	38.66	0.9979
1992	0.3513	0.2686	2.5198	0.0106	1.0760	2.39	0.0660	39.07	0.9983
1993	0.3631	0.2923	1.7824	(0.0537)	0.7363	21.61	0.1372	39.99	0.9966
1994	0.3930	0.3158	2.5440	(0.0095)	0.9385	19.61	0.0897	40.34	0.9978
1995	0.4012	0.3215	2.1359	(0.0478)	0.7453	15.23	0.1293	40.88	0.9968
1996	0.3884	0.3265	2.6046	(0.0091)	0.9388	12.73	0.0929	42.54	0.9978
1997	0.3696	0.3227	3.2729	0.0271	1.2398	16.02	0.0608	45.51	0.9987
1998	0.3570	0.3245	3.4934	0.0378	1.3701	21.57	0.0519	48.55	0.9989
1999	0.3571	0.3413	3.6900	0.0445	1.4600	27.33	0.0476	51.05	0.9991
2000	0.3877	0.3918	3.6541	0.0489	1.4609	47.38	0.0560	54.06	0.9990
2001	0.4270	0.4493	2.3799	(0.0211)	0.8824	112.60	0.1202	57.12	0.9979
2002	0.4675	0.4633	2.9703	0.0026	1.0165	113.96	0.0809	57.98	0.9986
2003	0.4677	0.4421	4.7803	0.0622	1.6353	18.35	0.0143	58.80	0.9998
2004	0.4786	0.4642	4.9918	0.0516	1.5384	20.51	0.0089	60.75	0.9999
2005	0.4850	0.4885	5.1818	0.0464	1.4957	17.88	(0.0031)	66.21	1.0000
2006	0.5231	0.5328	5.6006	0.0599	1.6413	31.85	0.0107	69.08	0.9998
2007	0.5287	0.5366	5.6144	0.0658	1.6992	37.38	0.0255	68.60	0.9996
2008	0.5487	0.5476	5.7404	0.0682	1.7136	29.00	0.0213	68.94	0.9997
2009	0.5943	0.5866	6.1882	0.0500	1.5201	27.08	0.0277	69.29	0.9996

Data source: KEWT 5.11–1 for 17 Europe Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A6–1 Indonesia: Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + \text{PRI} = \text{bop}$, the rate of change population and unemployment

Cost of capit	HA_{t+1}^*	$\Gamma^* - \text{HA}_{t+1}^*$	Γ^*	$\Gamma^* - \Gamma^* - \Gamma^*$	$\text{CC}^*_{\text{REAL}}$	$\text{CC}^*_{\text{REAL(G)}}$	$\text{CC}^*_{\text{REAL(PRI)}}$	$\text{CC}^*_{\text{NOMINAL}}$	$\text{CC}^*_{\text{NOMIG}}$	$\text{CC}^*_{\text{NOMIG(P)}}$
9. Indones	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI	
1990	0.8529	(0.2845)	1.5420	(0.1845)	0.0053	(0.2171)	0.3686	0.0805	0.4907	
1991	0.6477	(0.2254)	1.6645	(0.1354)	0.0052	(0.1505)	0.2537	0.0725	0.3081	
1992	0.4030	0.0268	1.9837	0.0135	0.0032	0.0158	0.2167	0.0396	0.2713	
1993	0.2125	0.0269	2.3109	0.0116	0.0070	0.0130	0.1036	0.0634	0.1154	
1994	0.1936	0.0258	2.5213	0.0102	0.0073	0.0110	0.0870	0.0708	0.0909	
1995	0.1886	0.0226	3.0902	0.0073	0.0126	0.0061	0.0684	0.1091	0.0576	
1996	0.1777	0.0185	2.9925	0.0062	0.0057	0.0061	0.0656	0.0748	0.0613	
1997	0.1916	0.0180	2.7628	0.0065	0.0004	0.0082	0.0759	0.0047	0.0952	
1998	0.1104	0.0256	2.1969	0.0117	(0.0083)	0.0235	0.0619	(0.0888)	0.0995	
1999	0.0666	0.0179	4.3663	0.0041	(0.0037)	0.0069	0.0193	(0.0257)	0.0299	
2000	0.2888	0.0328	1.7141	0.0192	(0.0190)	20.6453	0.1876	(0.1521)	0.4269	
2001	0.2571	0.0326	1.7120	0.0190	(0.0161)	0.0245	0.1692	(0.0901)	0.2338	
2002	0.1299	0.0243	2.2399	0.0109	(0.0054)	0.0148	0.0689	(0.0359)	0.0932	
2003	0.0836	0.0214	2.6274	0.0082	(0.0070)	0.0134	0.0400	(0.0502)	0.0602	
2004	0.0916	0.0229	3.124	0.0099	(0.0069)	0.0144	0.0495	(0.0384)	0.0703	
2005	0.1348	0.0184	3.2701	0.0056	0.0016	0.0065	0.0468	0.0099	0.0560	
2006	0.1661	0.0218	2.3388	0.0093	(0.0024)	0.0114	0.0803	(0.0173)	0.1011	
2007	0.1575	0.0196	2.6624	0.0074	0.0000	0.0086	0.0665	0.0000	0.0800	
2008	0.2157	0.0196	2.5494	0.0077	0.0023	0.0088	0.0923	0.0298	0.1043	
2009	0.2115	0.0204	2.2937	0.0089	(0.0002)	0.0104	0.1011	(0.0021)	0.1207	
Speed and,	$1/\lambda_t^*$	$1/\lambda_t^*$	$1/\lambda_t^*$	i_{actual}	$i_{\text{endogenous}}$	difference	Δd	$\text{SPRI} - \text{Ieri}$	bop	
9. Indones	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL	
1990	5.54	20.81	4.73	0.2631	0.3411	(0.0780)	0.0042	(0.0495)	(0.0453)	
1991	5.57	20.50	4.57	0.2615	0.3315	(0.0700)	0.0044	(0.0484)	(0.0440)	
1992	41.81	17.45	67.73	0.2460	0.3505	(0.1044)	(0.0042)	(0.0182)	(0.0225)	
1993	25.98	20.89	30.41	0.2365	0.2587	(0.0223)	0.0068	(0.0159)	(0.0091)	
1994	23.60	21.91	26.05	0.2508	0.2638	(0.0130)	0.0104	(0.0275)	(0.0171)	
1995	20.91	27.43	20.78	0.2545	0.2925	(0.0380)	0.0241	(0.0705)	(0.0464)	
1996	21.13	23.15	22.07	0.2665	0.2783	(0.0118)	0.0126	(0.0483)	(0.0357)	
1997	21.67	18.44	24.17	0.2531	0.2905	(0.0374)	(0.0073)	(0.0275)	(0.0348)	
1998	37.34	10.66	87.69	0.2270	0.1379	0.0891	(0.0328)	0.0785	0.0457	
1999	41.12	17.38	154.87	0.1646	0.1194	0.0452	(0.0125)	0.0176	0.0051	
2000	48.18	7.86	(6.49)	0.1597	0.2251	(0.0654)	(0.0429)	0.0847	0.0418	
2001	44.18	14.28	159.79	0.1559	0.2074	(0.0515)	(0.0243)	0.0728	0.0485	
2002	34.24	16.82	53.61	0.1550	0.1600	(0.0049)	(0.0139)	0.0494	0.0355	
2003	36.70	15.03	52.60	0.1592	0.1245	0.0348	(0.0193)	0.0576	0.0384	
2004	38.72	19.22	54.72	0.1930	0.1229	0.0701	(0.0144)	0.0610	0.0466	
2005	26.99	21.70	34.34	0.2069	0.2038	0.0031	(0.0039)	(0.0041)	(0.0080)	
2006	30.58	18.19	39.47	0.2108	0.2016	0.0092	(0.0108)	0.0235	0.0127	
2007	27.68	19.21	32.92	0.2191	0.2112	0.0079	(0.0072)	0.0064	(0.0008)	
2008	25.94	16.81	29.30	0.2491	0.2695	(0.0203)	(0.0070)	(0.0205)	(0.0274)	
2009	25.50	16.62	28.03	0.2863	0.2581	0.0281	(0.0113)	0.0036	(0.0077)	
Unemployment	n	DEQUI(G)-n	DEQUI(PRI)-n	DEQUI-n	DEQUI(G)-n	DEQUI(PRI)-n	Unem.rate(act)	$\text{GCP}(\text{actual})$	Infla. rate	
9. Indones	under attaining equilibrium			under the same wage rate by sector			actual; to population			
1990	0.0106	0.0000	(0.1106)	0.0000	0.0000	(0.0113)	0.0793	0.4928		
1991	0.0106	0.0000	(0.1006)	0.0000	0.0213	(0.1052)	0.0934	0.4807		
1992	0.0133	0.0000	0.0000	0.0000	(0.2359)	0.0491	(0.0122)	0.0756	0.2135	
1993	0.0152	0.0000	0.0000	0.0000	0.3188	(0.0860)	(0.0126)	0.0964	0.1790	
1994	0.0155	0.0000	0.0000	0.0000	0.1122	(0.0191)	(0.0198)	0.0855	0.1518	
1995	0.0153	0.0000	0.0000	0.0000	0.0598	(0.0089)	0.0000	0.0941	0.1659	
1996	0.0123	0.0000	0.0000	0.0000	0.0490	(0.0068)	(0.0180)	0.0818	0.1737	
1997	0.0115	0.0000	0.0000	0.0000	0.0479	(0.0063)	(0.0212)	0.0609	0.2002	
1998	0.0140	0.0000	0.0000	0.0000	0.3220	(0.0400)	(0.0248)	0.5842	0.2959	
1999	0.0138	0.0000	0.0000	0.0000	(0.0522)	0.0043	(0.0288)	0.2050	0.2587	
2000	0.0137	0.0000	(0.2737)	0.0000	(0.3817)	(0.2408)	(0.0275)	0.0373	0.1518	
2001	0.0135	0.0000	0.0000	0.0000	0.0026	(0.0003)	(0.0036)	0.1150	0.1529	
2002	0.0135	0.0000	0.0000	0.0000	0.1242	(0.0152)	(0.0041)	0.1184	0.1652	
2003	0.0133	0.0000	0.0000	0.0000	(0.0727)	0.0077	(0.0043)	0.0666	0.1480	
2004	0.0130	0.0000	0.0000	0.0000	(0.0433)	0.0049	(0.0046)	0.0624	0.1183	
2005	0.0128	0.0000	0.0000	0.0000	(0.0339)	0.0041	(0.0049)	0.1050	0.1221	
2006	0.0125	0.0000	0.0000	0.0000	(0.1125)	0.0140	(0.0050)	0.1310	0.1380	
2007	0.0123	0.0000	0.0000	0.0000	0.0473	(0.0066)	(0.0423)	0.0637	0.1190	
2008	0.0119	0.0000	0.0000	0.0000	(0.1190)	0.0158	(0.0378)	0.1006	0.1164	
2009	0.0115	0.0000	0.0000	0.0000	(0.1802)	0.0271	(0.0360)	0.0461	0.1246	

Data source: KEWT 5.11–1 for 17 Europe Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A6–2 Indonesia: Robustness, endogenous parameters and variables, and neutrality of the financial/market assets to the real assets, using M2, ten year debt yield, and the exchange rate

Robustness	$HA_{\beta}^{+}(\cdot)$	$HA_{\beta}^{+}(\cdot)$	$HA_{\beta}^{+}(\cdot)$	$HA_{\Omega}^{+}(\cdot)$	$HA_{\Omega}^{+}(\cdot)$	$HA_{\Omega}^{+}(\cdot)$	Width $_{\Omega}(\cdot)$	Width $_{\Omega}(\cdot)$	Width $_{\Omega}(\cdot)$	Width $_{\Omega}(\cdot)$
9. Indonesia	G	G	PR	G	G	PR	G	G	PR	G
1990	0.5470	0.7066	0.5019	0.5073	1.6166	0.4306	0.2402	0.1960	0.2123	0.474
1991	0.6007	0.7154	0.5739	0.6348	1.7253	0.5752	0.2706	0.2083	0.2504	0.426
1992	0.7129	0.7323	0.7072	1.2729	1.9007	1.1557	0.1722	0.2532	0.1571	0.135
1993	0.6580	0.7507	0.6348	1.4682	2.0907	1.3495	0.2191	0.2937	0.2047	0.149
1994	0.6697	0.7807	0.6428	1.5731	2.2033	1.4530	0.2350	0.3073	0.2210	0.149
1995	0.6762	0.7877	0.6508	1.6059	2.1961	1.4946	0.2374	0.3023	0.2249	0.148
1996	0.6824	0.8029	0.6547	1.6546	2.2316	1.5456	0.2190	0.2743	0.2083	0.132
1997	0.7021	0.8195	0.6759	1.7127	3.0448	1.5311	0.2164	0.3579	0.1969	0.126
1998	0.5901	0.8143	0.5452	1.4657	3.7718	1.3045	0.2166	0.4895	0.1972	0.148
1999	0.5590	0.7881	0.5136	1.4343	3.4233	1.2422	0.2143	0.4454	0.1915	0.149
2000	0.6365	0.7752	0.5297	1.2366	4.5512	(0.0196)	0.1779	0.5960	0.0640	0.144
2001	0.6310	0.7532	0.6073	1.2771	3.8357	1.0969	0.1832	0.5028	0.1604	0.143
2002	0.5977	0.7472	0.5709	1.4196	2.9779	1.2651	0.2061	0.3919	0.1875	0.145
2003	0.5886	0.7317	0.5619	1.5453	2.7919	1.4159	0.2221	0.3600	0.2067	0.144
2004	0.5872	0.7208	0.5621	1.5124	2.8611	1.3619	0.2156	0.3746	0.1977	0.143
2005	0.6002	0.7111	0.5802	1.3734	2.3588	1.2568	0.1957	0.3092	0.1821	0.142
2006	0.6103	0.6871	0.5964	1.3560	2.1782	1.2566	0.1896	0.2873	0.1777	0.140
2007	0.6119	0.6875	0.5990	1.3728	2.0899	1.2863	0.1901	0.2732	0.1800	0.138
2008	0.6401	0.6901	0.6312	1.3567	1.6961	1.3060	0.1824	0.2203	0.1767	0.134
2009	0.6665	0.6733	0.6653	1.4859	1.8388	1.4337	0.1925	0.2366	0.1860	0.130
Endogenous	α	δ_0	β^{+}	Ω	$\beta_{\alpha}^{+}=(1-\beta^{+})$	$\alpha^{+}=1/\beta^{+}$	$r^{+}=\alpha/\Omega$	$r^{+}_{\Omega}=\alpha/\Omega$	$r^{+}_{PR}=\alpha/PR$	δ_0/α
9. Indonesia	G	G	PR	G	G	PR	G	G	PR	G
1990	0.4327	(0.2563)	0.4459	0.7612	0.1890	2.8451	0.5684	0.2422	0.7168	(0.592)
1991	0.4111	(0.3911)	0.4952	0.9736	0.1673	2.5048	0.4223	0.2220	0.4924	(0.949)
1992	0.5130	0.8184	0.7259	1.1935	0.0961	2.0166	0.4298	0.2024	0.4993	1.595
1993	0.3121	0.6572	0.6842	1.3035	0.0817	1.7628	0.2394	0.2009	0.2508	2.106
1994	0.3046	0.6054	0.6967	1.3884	0.0800	1.6573	0.2194	0.2210	0.2189	1.988
1995	0.3029	0.5758	0.7005	1.4340	0.0876	1.4784	0.2113	0.2413	0.2030	1.901
1996	0.2940	0.5318	0.7035	1.4986	0.0825	1.5019	0.1962	0.2266	0.1848	1.809
1997	0.3281	0.5268	0.7205	1.5654	0.0812	1.5673	0.2096	0.1369	0.2293	1.606
1998	0.1619	0.6967	0.6394	1.1897	0.0497	1.8355	0.1361	0.0612	0.1584	4.304
1999	0.0955	0.7409	0.6165	1.1309	0.0458	1.2971	0.0844	0.0692	0.0891	7.760
2000	0.3571	0.8433	0.6610	1.1103	0.0763	2.4004	0.3216	(0.0429)	0.4215	2.361
2001	0.3283	0.8089	0.6584	1.1335	0.0709	2.4045	0.2896	(0.0145)	0.3630	2.464
2002	0.1844	0.6849	0.6382	1.1958	0.0579	1.8065	0.1542	0.0529	0.1780	3.714
2003	0.1291	0.6475	0.6426	1.2298	0.0445	1.6145	0.1050	0.0448	0.1196	5.015
2004	0.1386	0.6694	0.6401	1.2097	0.0442	1.7620	0.1145	0.0339	0.1339	4.831
2005	0.1851	0.6464	0.6306	1.2081	0.0753	1.4405	0.1532	0.0915	0.1668	3.492
2006	0.2252	0.6836	0.6392	1.1984	0.0727	1.7469	0.1879	0.0724	0.2119	3.036
2007	0.2162	0.6518	0.6394	1.2207	0.0761	1.6015	0.1771	0.0920	0.1937	3.014
2008	0.2926	0.6713	0.6600	1.2435	0.0916	1.6454	0.2353	0.1844	0.2453	2.294
2009	0.3143	0.6129	0.6867	1.3550	0.0809	1.7730	0.2319	0.1133	0.2543	1.950
Neutrality c	$m_K=M/K$	$m_M=M/Y$	$m_I=M/I$	$f_{DEBT}=r^{+}$	$f_{DEBT}=r^{+}$	$f_{DEBT}=r^{+}$	$e^{+}=r^{+}/\Omega$	$e^{+}=r^{+}/\Omega$	$e^{+}=r^{+}/\Omega$	$e^{+}=r^{+}/\Omega$
9. Indonesia	G	G	G	G	G	G	G	G	G	G
1990	0.5858	0.4459	1.0306	(0.3601)	0.3665	34	0.4947	1901	0.9997	11587
1991	0.4539	0.4419	1.0747	(0.1670)	0.6046	32	0.3550	1992	0.9998	11192
1992	0.3839	0.4583	0.8932	(0.1895)	0.5501	41	0.3565	2062	0.9998	17
1993	0.3700	0.4823	1.5455	(0.0335)	0.8601	183	0.1729	2110	0.9999	3035
1994	0.3596	0.4993	1.6393	(0.0418)	0.8096	288	0.1546	2200	0.9999	5058
1995	0.3711	0.5321	1.7564	(0.0228)	0.8923	215	0.1527	2308	0.9999	4443
1996	0.3917	0.5870	1.9966	(0.0040)	0.9796	296	0.1400	2383	0.9999	5274
1997	0.3931	0.6153	1.8755	0.0086	1.0411	694	0.1574	4650	1.0000	8213
1998	0.5642	0.6712	4.1464	0.1854	2.3628	3117	0.0858	8025	1.0000	15958
1999	0.5648	0.6387	6.6900	0.1922	3.2765	4135	0.0352	7085	1.0000	15907
2000	0.5205	0.5780	1.6185	(0.1370)	0.5740	2661	0.2715	9595	1.0000	584
2001	0.4805	0.5447	1.6592	(0.1041)	0.6405	2371	0.2304	10400	1.0000	1426
2002	0.4359	0.5213	2.8267	0.0353	1.2288	2109	0.0777	8940	1.0000	9240
2003	0.4236	0.5210	4.0350	0.0644	1.6135	2579	0.0215	8465	1.0000	14503
2004	0.4117	0.4981	3.5947	0.0267	1.2327	3247	0.0276	9290	1.0000	14626
2005	0.3982	0.4811	2.5993	(0.0127)	0.9171	1788	0.0565	9830	1.0000	8655
2006	0.3807	0.4562	2.0260	(0.0281)	0.8504	2400	0.1052	9020	1.0000	5447
2007	0.3757	0.4586	2.1210	(0.0385)	0.7825	2836	0.1085	9419	1.0000	6101
2008	0.3382	0.4206	1.4373	(0.0993)	0.5780	1939	0.1610	10950	1.0000	3002
2009	0.3092	0.4190	1.3332	(0.0869)	0.6251	1428	0.1636	9400	1.0000	2850

Data source: KEWT 5.11–1 for 17 Europe Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A7-1 Philippines: Inflation rate, the rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + \text{PRI} = \text{bop}$, the rate of change population and unemployment

Cost of capit	$\text{HA}_{t+1}^{**}(\text{I})$	$\Gamma^{*}-\text{HA}_{t+1}^{**}(\text{I})$	$\Gamma^{*}-\Gamma^{*}/\Gamma^{*}-\text{RY}^{*}$	$\text{CC}^{*}_{\text{REAL}}$	$\text{CC}^{*}_{\text{REAL}(\text{G})}$	$\text{CC}^{*}_{\text{REAL}(\text{PRI})}$	$\text{CC}^{*}_{\text{NOMINAL}}$	$\text{CC}^{*}_{\text{NOMIG}(\text{G})}$	$\text{CC}^{*}_{\text{NOMIG}(\text{P})}$
max. endo. in	REAL	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
13. Philipp									
1990	0.1366	0.0001	4.2469	0.0000	(0.0018)	(0.0072)	0.0322	(0.0244)	(0.0180)
1991	0.1281	0.0032	2.6560	0.0012	(0.0011)	(0.0020)	0.0495	(0.0069)	(0.0030)
1992	0.1290	0.0080	1.9954	0.0040	0.0016	0.0247	0.0687	0.0128	0.0267
1993	0.1693	0.0005	1.6160	0.0003	(0.0009)	(0.0007)	0.1051	(0.0062)	0.1807
1994	0.1535	0.0005	1.5788	0.0003	0.0114	0.0444	0.0976	0.0436	0.1254
1995	0.1157	0.0003	3.3912	0.0001	0.0050	0.0023	0.0342	0.0371	0.0168
1996	0.1053	0.0002	5.3982	0.0000	0.0072	(0.0022)	0.0195	0.0282	(0.0096)
1997	0.1154	0.0014	28.6762	0.0014	0.0056	(0.0000)	0.0055	0.0271	0.0323
1998	0.0885	0.0408	7.5297	0.0054	(0.0039)	(0.0001)	0.0172	(0.0145)	0.0531
1999	0.1165	0.0406	2.0482	0.0198	(0.0057)	(0.0004)	0.0767	(0.0426)	0.1545
2000	0.1621	0.0515	1.6535	0.0312	(0.0082)	(0.0005)	0.1292	(0.0525)	0.2695
2001	0.1701	0.0392	2.0392	0.0192	(0.0071)	(0.0234)	0.1026	(0.0480)	0.2276
2002	0.1819	0.0441	1.7986	0.0245	(0.0075)	(0.0460)	0.1256	(0.0609)	0.2813
2003	0.1920	0.0358	2.1545	0.0166	(0.0068)	(0.0220)	0.1057	(0.0491)	0.2430
2004	0.1854	0.0395	1.9327	0.0204	(0.0054)	0.0484	0.1164	(0.0380)	0.2380
2005	0.1608	0.0377	2.0085	0.0188	(0.0037)	0.0419	0.0989	(0.0236)	0.1950
2006	0.0848	0.0393	1.9071	0.0206	(0.0011)	0.0513	0.0651	(0.0053)	0.1160
2007	0.0698	0.0436	1.7443	0.0250	0.0010	0.0531	0.0650	0.0036	0.1136
2008	0.0585	0.0480	1.6192	0.0297	(0.0029)	0.0742	0.0658	(0.0093)	0.1265
2009	0.1253	0.0714	1.3381	0.0534	(0.0023)	0.1484	0.1470	(0.0096)	0.2833
Speed and,	$1/\lambda^{*}$	$1/\lambda_{\text{G}}^{*}$	$1/\lambda_{\text{PRI}}^{*}$	i_{actual}	$i_{\text{endoge.}}$	difference	Δd	$\text{SPRI}-i_{\text{PRI}}$	bop
in equilibrium	G	C	PRI	actual	endogenous		G	PRI	TOTAL
13. Philipp									
1990	7.73	13.58	4.25	0.1862	0.1666	0.0196	(0.0384)	(0.0317)	(0.0700)
1991	8.77	13.90	212.43	0.1562	0.1301	0.0261	(0.0227)	(0.0037)	(0.0265)
1992	5.69	16.42	40.97	0.1649	0.1099	0.0550	(0.0128)	(0.0217)	(0.0345)
1993	3.09	16.50	36.39	0.1915	0.1092	0.0823	(0.0165)	(0.0509)	(0.0674)
1994	6.35	26.40	7.08	0.1904	0.0954	0.0950	0.0119	(0.0534)	(0.0415)
1995	5.41	23.78	8.67	0.1717	0.1423	0.0295	0.0062	(0.0602)	(0.0540)
1996	3.03	22.46	4.88	0.1781	0.1533	0.0248	0.0030	(0.0520)	(0.0490)
1997	40.31	21.24	5.07	0.1699	0.2356	(0.0657)	0.0006	(0.0597)	(0.0591)
1998	28.54	15.74	7.93	0.1458	0.1810	(0.0352)	(0.0178)	0.0037	(0.0141)
1999	43.95	13.27	16.13	0.1314	0.1343	(0.0030)	(0.0356)	0.0879	0.0523
2000	46.92	13.48	5.66	0.1444	0.1392	0.0052	(0.0382)	0.1153	0.0772
2001	32.58	14.13	4.70	0.1218	0.1898	(0.0680)	(0.0379)	0.0717	0.0338
2002	32.79	13.49	4.27	0.1200	0.1837	(0.0638)	(0.0503)	0.1062	0.0559
2003	26.04	15.40	(20.84)	0.1138	0.2391	(0.1253)	(0.0432)	0.0559	0.0127
2004	28.23	17.55	113.52	0.1101	0.2182	(0.1081)	(0.0362)	0.0747	0.0384
2005	27.56	20.30	74.39	0.0995	0.2083	(0.1088)	(0.0257)	0.0643	0.0386
2006	34.99	24.86	62.89	0.1018	0.1251	(0.0233)	(0.0107)	0.0868	0.0760
2007	40.51	30.54	65.33	0.1089	0.0997	0.0092	(0.0019)	0.0940	0.0921
2008	46.32	29.38	69.21	0.1083	0.0785	0.0298	(0.0103)	0.1125	0.1023
2009	50.85	25.04	94.36	0.0970	0.0905	0.0065	(0.0118)	0.1536	0.1418
Unemployme	n	REQUIR-G-n	REQUIR-P-n	REQUIR-n	REQUIR(G)-n	REQUIR(P)-n	Unem.rate(act)	$\text{GCP}(\text{actual})$	Infla. rate
under attaining equilibrium							actual; to population		
13. Philipp									
1990	0.0230	0.0000	0.0000	0.0000	0.0000	0.0000	(0.0365)	0.1311	0.2410
1991	0.0359	0.0000	0.0000	(0.0339)	0.0521	(0.0074)	(0.0405)	0.1852	0.2275
1992	0.0259	0.0000	0.0000	(0.0219)	0.0031	(0.0004)	(0.0387)	0.0856	0.1868
1993	0.0205	0.0000	(0.0206)	(0.0203)	(0.1172)	(0.0050)	(0.0401)	0.0688	0.1463
1994	0.0216	0.0000	0.0000	(0.0214)	(0.0507)	0.0076	(0.0378)	0.0843	0.1500
1995	0.0122	0.0000	0.0000	(0.0120)	0.0200	(0.0032)	(0.0428)	0.0799	(0.1422)
1996	0.0236	0.0000	0.0000	(0.0234)	(0.0269)	0.0042	(0.0387)	0.0751	0.1397
1997	0.0207	0.0000	(0.0208)	0.0193	(0.0791)	(0.0081)	(0.0392)	0.0559	0.0886
1998	0.0354	0.0000	(0.0355)	0.0000	0.0183	(0.0387)	(0.0464)	0.0927	0.1390
1999	0.0208	0.0000	(0.0209)	0.0000	(0.0201)	(0.0174)	(0.0441)	0.0595	0.0827
2000	0.0204	0.0000	(0.0205)	0.0000	(0.0737)	(0.0075)	(0.0504)	0.0395	0.0662
2001	0.0200	0.0000	(0.0280)	0.0000	0.0476	(0.0370)	(0.0500)	0.0680	0.0948
2002	0.0196	0.0000	(0.0286)	0.0000	0.0038	(0.0292)	(0.0513)	0.0300	0.0428
2003	0.0192	0.0000	(0.0282)	0.0000	0.0050	(0.0291)	(0.0513)	0.0345	0.0513
2004	0.0191	0.0000	0.0000	0.0000	0.0591	(0.0105)	(0.0531)	0.0598	0.0632
2005	0.0189	0.0000	0.0000	0.0000	0.0678	(0.0112)	(0.0513)	0.0764	0.0489
2006	0.0187	0.0000	0.0000	0.0000	0.0858	(0.0131)	(0.0356)	0.0630	0.0345
2007	0.0186	0.0000	0.0000	0.0000	(0.0027)	0.0004	(0.0329)	0.0273	0.0098
2008	0.0184	0.0000	0.0000	0.0000	0.0715	(0.0099)	(0.0333)	0.0934	0.0320
2009	0.0180	0.0000	0.0000	0.0000	(0.1579)	0.0202	(0.0338)	0.0327	0.0086

Data source: KEWT 5.11-1 for 17 Europe Area by sector, 1990-2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A7–2 Philippines: Robustness, endogenous parameters and variables, and neutrality of the financial/market assets to the real assets, using M2, ten year debt yield, and the exchange rate

Robustness	$HA_{\Omega}^{+}(\cdot)$	$HA_{\Omega}^{+}(\cdot)_{G}$	$HA_{\Omega}^{+}(\cdot)_{PR}$	$HA_{\Omega}^{+}(\cdot)_{G+PR}$	$HA_{\Omega}^{+}(\cdot)_{G}$	$HA_{\Omega}^{+}(\cdot)_{PR}$	$Width_{\Omega}(\cdot)$	$Width_{\Omega}(\cdot)_{G}$	$Width_{\Omega}(\cdot)_{PR}$	$Width_{\Omega}(\cdot)_{G+PR}$
13. Philippines										
1990	0.4320	0.7109	0.3508	0.6896	1.5327	0.8654	0.0105	0.2725	0.1903	0.015
1991	0.4380	0.7572	0.3321	0.7233	2.1078	1.4255	0.0485	0.4507	0.3483	0.067
1992	0.4631	0.7955	0.3250	0.8163	2.4035	6.0527	0.0747	0.4280	1.0479	0.091
1993	0.4912	0.8041	0.3357	0.8318	3.0083	0.4557	0.0168	0.4737	0.0079	0.020
1994	0.4834	0.7881	0.3404	0.8206	3.3819	0.7152	0.0167	0.5441	0.1577	0.020
1995	0.4820	0.7777	0.3523	0.8416	2.7724	0.5911	0.0171	0.3418	0.1049	0.020
1996	0.4917	0.7696	0.3803	0.8797	3.1293	0.7416	0.0177	0.5322	0.1710	0.020
1997	0.5386	0.7553	0.4413	1.2971	2.7609	0.6925	0.3312	0.4451	0.0104	0.255
1998	0.5550	0.7712	0.4604	1.5229	3.2108	0.7633	0.3566	0.6665	0.0113	0.234
1999	0.5664	0.7889	0.4631	1.4367	2.9993	0.7388	0.2593	0.4798	0.0109	0.180
2000	0.5878	0.7974	0.4818	1.4182	3.5160	0.7148	0.2505	0.5528	0.0103	0.177
2001	0.6151	0.8221	0.5064	1.4515	3.8117	0.7126	0.2518	0.5860	0.0918	0.173
2002	0.6444	0.8462	0.5281	1.5750	4.0443	0.7033	0.2647	0.6090	0.0953	0.168
2003	0.6755	0.8622	0.5656	1.6540	4.5870	0.8311	0.2715	0.6777	0.1069	0.164
2004	0.6908	0.8773	0.5867	1.7814	4.8655	1.1954	0.2878	0.7111	0.2063	0.162
2005	0.6926	0.8851	0.5864	1.8968	5.1744	1.2714	0.3044	0.7502	0.2182	0.161
2006	0.6668	0.8843	0.5496	2.3119	5.7857	1.8055	0.3663	0.8315	0.2981	0.158
2007	0.6591	0.8812	0.5396	2.5366	6.8504	1.8356	0.3972	0.9780	0.3019	0.157
2008	0.6402	0.8813	0.5139	2.6827	7.8056	2.1548	0.4160	1.1059	0.3445	0.155
2009	0.6547	0.8748	0.5301	2.1400	6.1482	1.7216	0.3322	0.8698	0.2757	0.155
Endogenous	α	δ_0	β^{+}	Ω	$g_{\alpha}^{+}=(1-\beta^{+})$	$x^{+}=r^{+}/g_{\alpha}^{+}$	$r^{+}=\alpha/\Omega$	$r^{+}_{G}=\alpha_{G}/\Omega_{G}$	$r^{+}_{PR}=\alpha_{PR}/\Omega_{PR}$	δ_0/α
13. Philippines										
1990	0.0942	(0.3667)	0.4323	0.6890	0.0946	1.3080	0.1367	0.2882	0.0391	(3.894)
1991	0.0927	(0.5518)	0.4441	0.7056	0.0723	1.6039	0.1314	0.2280	0.0506	(5.954)
1992	0.1053	(2.0021)	0.4781	0.7685	0.0574	2.0046	0.1371	0.2138	0.0547	(19.007)
1993	0.1409	(4.8370)	0.4920	0.8293	0.0555	2.6233	0.1699	0.1386	0.2073	(34.336)
1994	0.1260	(2.2001)	0.4843	0.8177	0.0492	2.7276	0.1541	0.1260	0.1863	(17.464)
1995	0.0974	(1.5067)	0.4826	0.8396	0.0736	1.4182	0.1160	0.1275	0.1044	(15.473)
1996	0.6426	(3.2361)	0.4823	0.8776	0.0778	1.2274	0.1055	0.1215	0.0916	(34.942)
1997	0.1497	1.1010	0.6134	0.9544	0.0911	1.0361	0.1569	0.1267	0.1771	7.353
1998	0.1348	0.9312	0.6457	1.0422	0.0641	1.1531	0.1293	0.1179	0.1368	6.909
1999	0.1674	0.8880	0.6379	1.0655	0.0486	1.9540	0.1571	0.1120	0.1907	5.303
2000	0.2299	0.8835	0.6527	1.0763	0.0484	2.5303	0.2136	0.0778	0.3208	3.842
2001	0.2469	0.7552	0.6628	1.1799	0.0640	1.9623	0.2093	0.0871	0.3055	3.059
2002	0.2865	0.7074	0.6924	1.2679	0.0565	2.2522	0.2260	0.0970	0.3363	2.469
2003	0.3176	0.6326	0.7118	1.3940	0.0689	1.8661	0.2278	0.0900	0.3423	1.992
2004	0.3302	0.6147	0.7305	1.4685	0.0588	2.0722	0.2249	0.0968	0.3319	1.861
2005	0.3051	0.5802	0.7355	1.5363	0.0551	1.9915	0.1986	0.0970	0.2831	1.902
2006	0.1961	0.5749	0.7455	1.5792	0.0318	2.1025	0.1242	0.0848	0.1583	2.932
2007	0.1772	0.6103	0.7585	1.5619	0.0241	2.3435	0.1134	0.0679	0.1534	3.445
2008	0.1569	0.6707	0.7642	1.4729	0.0185	2.6150	0.1065	0.0494	0.1579	4.274
2009	0.2681	0.7160	0.7485	1.3631	0.0228	3.9579	0.1967	0.0671	0.3177	2.671
Neutrality c	$m_K=M/K$	$m_Y=M/Y$	$m_I=M/I$	$r_{DEBT}=r^{+}$	r_{DEBT}/r^{+}	$(e_{US}/g_{\alpha}^{+})^{+}$	$r^{+}=e^{+}(US)$	$e^{+}(US)$	$e_{US}/e^{+}(US)$	e_{US}/y^{+}
13. Philippines										
1990	0.5523	0.3805	4.0407	0.1045	1.7644	1.61	0.0629	28.06	0.9978	28.64
1991	0.5303	0.3742	4.0371	0.0994	1.7567	1.55	0.0640	26.71	0.9976	22.41
1992	0.5140	0.3950	3.7502	0.0577	1.4212	1.55	0.0637	25.16	0.9975	27.80
1993	0.5720	0.4743	3.3671	(0.0230)	0.8643	4.42	0.1034	27.80	0.9963	50.92
1994	0.6404	0.5236	4.1561	(0.0035)	0.9773	6.53	0.0893	24.51	0.9964	43.80
1995	0.6588	0.5531	5.6803	0.0265	1.2287	3.76	0.0574	26.27	0.9978	34.35
1996	0.6728	0.5905	6.3756	0.0344	1.3257	4.46	0.0493	26.34	0.9981	41.81
1997	0.6238	0.5954	3.9759	(0.0268)	0.8291	6.73	0.1047	40.08	0.9974	1.17
1998	0.5596	0.5832	4.3273	0.0505	1.3908	12.15	0.0791	39.14	0.9980	9.96
1999	0.5716	0.6090	3.6375	(0.0338)	0.7848	20.38	0.1079	40.42	0.9973	6.85
2000	0.5381	0.5791	2.5187	(0.0960)	0.5508	26.21	0.1635	50.16	0.9967	5.81
2001	0.4615	0.5446	2.2056	(0.0753)	0.6403	14.54	0.1500	51.55	0.9971	6.62
2002	0.4296	0.5447	1.9012	(0.1391)	0.3845	11.22	0.1495	53.25	0.9972	7.16
2003	0.3719	0.5185	1.6328	(0.1407)	0.3826	8.57	0.1443	55.71	0.9974	7.16
2004	0.3494	0.5130	1.5535	(0.1222)	0.4567	11.50	0.1379	56.40	0.9976	8.69
2005	0.3208	0.4929	1.6156	(0.1120)	0.4361	11.25	0.1019	53.17	0.9981	10.53
2006	0.3494	0.5518	2.8142	(0.0503)	0.5948	31.00	0.0415	49.17	0.9992	23.90
2007	0.3404	0.5316	3.0006	(0.0600)	0.4708	41.40	0.0448	41.45	0.9989	24.21
2008	0.3349	0.4933	3.1437	(0.0265)	0.7510	49.86	0.0322	47.52	0.9993	29.03
2009	0.3127	0.4262	1.5897	(0.1167)	0.4067	26.71	0.1283	46.48	0.9972	12.85

Data source: KEWT 5.11–1 for 17 Europe Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A8-1 Sri Lanka: Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + \text{PRI} = \text{bop}$, the rate of change population and unemployment

Cost of capit	$\text{HA}_{t+1}^{**}(\text{I})$	$r^* - \text{HA}_{t+1}^{**}(\text{I})$	$v^* - r^*/G^* - \text{BY}^*$	$\text{CC}^*_{\text{REAL}}$	$\text{CC}^*_{\text{REAL(G)}}$	$\text{CC}^*_{\text{REAL(PRI)}}$	$\text{CC}^*_{\text{NOMINAL}}$	$\text{CC}^*_{\text{NOMIG}}$	$\text{CC}^*_{\text{NOMIG(P)}}$
15. Sri Lan	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990	1.7070	0.1028	1.1234	0.0915	(0.0009)	0.4542	1.6110	(3.5558)	2.7664
1991	0.5692	0.0526	1.3879	0.0379	(69.1987)	0.2536	0.4480	(0.5617)	1.0197
1992	0.2748	0.0175	2.1287	0.0082	(16.3098)	0.0534	0.1373	(0.2011)	0.3058
1993	0.1813	0.0171	3.8113	0.0045	(0.0215)	0.0346	0.0521	(0.3679)	0.1781
1994	0.1445	0.0222	10.2217	0.0022	(0.0897)	0.0330	0.0163	(0.3982)	0.1493
1995	0.1416	0.0012	5.7663	0.0002	(0.0279)	0.0131	0.0248	(0.3635)	0.1562
1996	0.1299	(0.0012)	5.3544	(0.0002)	(0.0117)	0.0138	0.0240	(0.2399)	0.1125
1997	0.0928	(0.0012)	(1.6133)	0.0008	(0.0103)	(0.0001)	(0.0568)	(0.1763)	(0.0156)
1998	0.0834	0.0027	(10.1429)	(0.0003)	(0.0102)	(0.0058)	(0.0085)	(0.2093)	0.0723
1999	0.0715	0.0040	(2.9658)	(0.0014)	(0.0038)	(0.0011)	(0.0255)	(0.1304)	(0.0038)
2000	0.0730	0.0044	(3.0092)	(0.0015)	(0.0065)	0.0072	(0.0257)	(0.1837)	0.0287
2001	0.0794	0.0084	5.6573	0.0015	(0.0073)	0.0379	0.0155	(0.1833)	0.1008
2002	0.0790	0.0087	6.8054	0.0013	(0.0089)	(0.0118)	0.0129	(0.1417)	0.1007
2003	0.0765	0.0105	4.9440	0.0021	(0.0092)	(0.0092)	0.0176	(0.1259)	0.1020
2004	0.0747	0.0081	(29.2486)	(0.0003)	(0.0099)	(0.0085)	(0.0028)	(0.1338)	0.0802
2005	0.0672	0.0069	(3.6826)	(0.0019)	(0.0116)	0.0070	(0.0201)	(0.1318)	0.0405
2006	0.0722	0.0068	(3.5634)	(0.0019)	(0.0218)	0.0074	(0.0222)	(0.1526)	0.0430
2007	0.0701	0.0070	(3.2829)	(0.0021)	(0.0242)	0.0074	(0.0235)	(0.1608)	0.0311
2008	0.1006	0.0092	61.6130	0.0001	(0.0367)	0.0143	0.0018	(0.1917)	0.0676
2009	0.0647	0.0080	(7.9501)	(0.0010)	(0.0271)	0.0101	(0.0091)	(0.2714)	0.0889
Speed and,	$1/\lambda^*$	$1/\lambda_G^*$	$1/\lambda_{\text{PRI}}^*$	i_{actual}	$i_{\text{endogenous}}$	difference	Δd	$\text{SPRI} - \text{I} - \text{RI}$	bop
15. Sri Lan	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL
1990	5.36	1.95	5.79	0.1665	0.1770	(0.0105)	(0.0850)	(0.0233)	(0.1083)
1991	5.70	(1.64)	6.06	0.1739	0.1742	(0.0002)	(0.1039)	(0.0290)	(0.1329)
1992	5.93	(2.83)	5.24	0.1809	0.1881	(0.0071)	(0.0592)	(0.0628)	(0.1220)
1993	5.32	2.67	4.97	0.1939	0.1951	(0.0012)	(0.0706)	(0.0475)	(0.1180)
1994	2.59	3.14	3.33	0.2049	0.2139	(0.0090)	(0.0939)	(0.0516)	(0.1455)
1995	4.86	2.91	4.41	0.1969	0.1953	0.0016	(0.0908)	(0.0353)	(0.1262)
1996	3.37	4.46	4.62	0.1838	0.1837	0.0001	(0.0857)	(0.0285)	(0.1142)
1997	83.27	6.14	3.26	0.1834	0.2865	(0.1031)	(0.0681)	(0.1074)	(0.1755)
1998	31.86	6.38	5.55	0.1947	0.1844	0.0102	(0.0761)	(0.0004)	(0.0765)
1999	18.71	7.73	47.40	0.2122	0.2100	0.0021	(0.0653)	(0.0392)	(0.1044)
2000	17.29	5.60	49.30	0.2181	0.2208	(0.0028)	(0.0933)	(0.0449)	(0.1382)
2001	26.89	5.60	89.27	0.1711	0.1522	0.0189	(0.1038)	0.0157	(0.0881)
2002	26.73	7.82	9.17	0.1561	0.1554	0.0007	(0.0819)	(0.0068)	(0.0886)
2003	29.06	8.66	7.16	0.1559	0.1436	0.0122	(0.0762)	(0.0008)	(0.0771)
2004	22.39	8.30	7.27	0.1761	0.1805	(0.0044)	(0.0815)	(0.0275)	(0.1090)
2005	19.47	8.92	280.21	0.1818	0.2006	(0.0188)	(0.0775)	(0.0353)	(0.1128)
2006	18.38	11.64	55.89	0.1934	0.2151	(0.0216)	(0.0765)	(0.0611)	(0.1376)
2007	18.83	11.79	34.17	0.1923	0.2115	(0.0192)	(0.0725)	(0.0550)	(0.1274)
2008	20.30	14.03	31.93	0.1967	0.2215	(0.0248)	(0.0730)	(0.1055)	(0.1785)
2009	22.44	5.46	47.31	0.1908	0.1743	0.0165	(0.1144)	0.0293	(0.0851)
Unemployment	n	DeQUI(G)-n	DeQUI(PRI)-n	$\text{DeQUI}^* - \text{n}$	$\text{DeQUI(G)-DeQUI(PRI)-n}$	DeQUI(PRI)-n	Unem.rate(act)	DeQUI(G)-n	Infla. rate
15. Sri Lan	under attaining equilibrium						actual; to population		
1990	0.0113	(0.0112)	0.0194	0.0000	0.0000	0.0000	(0.0648)	0.1352	0.0272
1991	0.0147	(0.3847)	0.0250	0.0000	(0.4411)	0.0327	(0.0635)	0.1223	0.1413
1992	0.0093	(0.2793)	0.0194	0.0000	(0.2267)	0.0118	(0.0635)	0.1134	0.1793
1993	0.0126	0.0000	0.0152	0.0000	0.0590	0.0072	(0.0662)	0.1175	0.1849
1994	0.0578	0.0000	(0.0277)	(0.0378)	(0.0670)	(0.0192)	(0.0590)	0.0853	0.1591
1995	0.0107	0.0000	(0.0007)	(0.0097)	(0.1873)	0.0247	(0.0554)	0.0764	0.1792
1996	0.0106	0.0000	(0.0006)	(0.0116)	0.0817	(0.0141)	(0.0509)	0.1590	0.1838
1997	0.0100	0.0000	(0.0090)	0.0295	0.0977	0.0240	(0.0473)	0.0958	0.1481
1998	0.0049	0.0000	(0.0119)	(0.0019)	(0.3691)	0.0398	(0.0414)	0.0937	0.1476
1999	0.0054	0.0000	0.0207	0.0000	0.3429	(0.0484)	(0.0401)	0.0468	0.1432
2000	0.0059	0.0000	0.0170	0.0000	(0.1755)	0.0388	(0.0342)	0.0619	0.1572
2001	0.0069	0.0000	0.0080	0.0000	0.0075	0.0069	(0.0356)	0.1422	0.1855
2002	0.0074	0.0000	(0.0134)	0.0000	(0.2375)	0.0217	(0.0396)	0.0951	0.1230
2003	0.0084	0.0000	(0.0124)	0.0000	0.0441	(0.0207)	(0.0374)	0.0639	0.0929
2004	0.0083	0.0000	(0.0153)	0.0000	(0.0339)	(0.0093)	(0.0383)	0.0756	0.0866
2005	0.0088	0.0000	0.0079	0.0000	(0.0241)	0.0124	(0.0347)	0.0905	0.1007
2006	0.0087	0.0000	0.0124	0.0000	(0.1834)	0.0476	(0.0293)	0.1000	0.1217
2007	0.0091	0.0000	0.0207	0.0000	0.0105	0.0182	(0.0270)	0.1582	0.1638
2008	0.0091	0.0000	0.0199	0.0000	(0.1095)	0.0453	(0.0234)	0.2261	0.1797
2009	0.0090	0.0000	0.0000	0.0000	(0.0396)	0.0105	(0.0257)	0.0339	0.1420

Data source: KEWT 5.11-1 for 17 Europe Area by sector, 1990-2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A8-2 Sri Lanka: Robustness, endogenous parameters and variables, and neutrality
of the financial/market assets to the real assets, using M2, ten
year debt yield, and the exchange rate

Robustness	$HA_{B+}^{*}(\cdot)$	$HA_{B+}^{*}(\cdot)$	$HA_{B+}^{*}(\cdot)$	$HA_{\Omega+}^{*}(\cdot)$	$HA_{\Omega+}^{*}(\cdot)$	$HA_{\Omega+}^{*}(\cdot)$	Width $_{\Omega+}^{*}(\cdot)$	Width $_{\Omega+}^{*}(\cdot)$	Width $_{\Omega+}^{*}(\cdot)$	Width $_{\Omega+}^{*}(\cdot)$
15. Sri Lanka	G	G	PR	G	G	PR	G	G	PR	G
1990	0.0651	0.0977	0.0614	0.0649	0.1642	0.0640	0.0263	0.0053	0.0416	0.405
1991	0.2120	0.2979	0.1767	0.2487	(0.0089)	0.2209	0.0632	0.0916	0.0934	0.254
1992	0.3060	0.4131	0.2732	0.4120	(0.0150)	0.3778	0.0702	0.0827	0.1143	0.170
1993	0.3724	0.5789	0.3341	0.5744	1.8152	0.5235	0.1029	0.2647	0.1411	0.179
1994	0.4334	0.6488	0.3877	0.7689	2.9938	0.6713	0.1588	0.8575	0.1740	0.207
1995	0.4653	0.6225	0.4289	0.7801	2.7851	0.6735	0.0361	0.3600	0.1003	0.046
1996	0.4901	0.6928	0.4381	0.8480	2.4719	0.7648	0.0384	0.3034	0.1115	0.045
1997	0.5260	0.7211	0.4765	0.9958	2.7520	0.8193	0.0616	0.3214	0.0375	0.062
1998	0.5423	0.6603	0.5055	1.1074	2.5810	0.8186	0.0818	0.2199	0.0982	0.074
1999	0.5755	0.7846	0.5224	1.2928	3.1200	1.3874	0.1237	0.2577	0.2875	0.096
2000	0.5919	0.7777	0.5379	1.3757	3.8275	1.3344	0.1357	0.3319	0.2589	0.099
2001	0.5987	0.8034	0.5277	1.4502	4.3802	1.5289	0.1530	0.4051	0.2332	0.105
2002	0.5930	0.7696	0.5205	1.4245	3.8468	0.8386	0.1560	0.3746	0.0925	0.109
2003	0.5956	0.7859	0.5157	1.4742	4.0797	0.8481	0.1708	0.4186	0.0763	0.116
2004	0.5970	0.7822	0.5171	1.4512	4.1502	0.8424	0.1681	0.4249	0.1005	0.116
2005	0.5956	0.7720	0.5269	1.4526	4.1155	1.1535	0.1730	0.4345	0.1965	0.119
2006	0.5967	0.7237	0.5508	1.4383	3.9785	1.2090	0.1707	0.4276	0.2272	0.119
2007	0.5913	0.7023	0.5576	1.4200	3.5925	1.3511	0.1732	0.4005	0.2954	0.122
2008	0.5980	0.6594	0.5827	1.3850	3.2814	1.3461	0.1675	0.3718	0.2865	0.121
2009	0.5985	0.6518	0.5807	1.4986	3.1089	1.2581	0.1794	0.3584	0.1526	0.120
Endogenous	α	δ_0	β^*	Ω	$\alpha^*=(1-\beta^*)$	$\alpha^*=(1-\beta^*)$	$\alpha^*=(1-\beta^*)$	$\alpha^*=(1-\beta^*)$	$\alpha^*=(1-\beta^*)$	δ_0/α
15. Sri Lanka										
1990	0.1108	(0.0718)	0.0688	0.0612	0.1648	9.1060	1.8098	(3.1399)	2.9535	(0.648)
1991	0.1415	(0.2087)	0.2272	0.2277	0.1346	3.5777	0.6217	(0.5647)	1.1796	(1.474)
1992	0.1132	(0.2522)	0.3192	0.3874	0.1280	1.8860	0.2923	(0.2044)	0.4700	(2.228)
1993	0.1041	(0.4925)	0.3937	0.5249	0.1183	1.3557	0.1984	(0.1516)	0.3217	(4.730)
1994	0.1111	(2.2401)	0.4688	0.6667	0.1136	1.1084	0.1667	(0.1416)	0.2856	(20.159)
1995	0.1105	(0.9708)	0.4675	0.7734	0.1040	1.2098	0.1428	(0.2239)	0.2757	(8.790)
1996	0.1102	(2.1583)	0.4877	0.8561	0.0941	1.2297	0.1287	(0.0229)	0.1943	(19.593)
1997	0.0924	0.8989	0.5227	1.0092	0.1367	0.6173	0.0916	(0.0048)	0.1295	9.724
1998	0.0924	0.6543	0.5503	1.0723	0.0829	0.9103	0.0862	(0.1095)	0.1603	7.083
1999	0.0925	0.3766	0.5889	1.2239	0.0864	0.7478	0.0756	0.0542	0.0846	4.732
2000	0.1005	0.3960	0.6060	1.2971	0.0870	0.7506	0.0774	(0.0167)	0.1204	3.943
2001	0.1151	0.4590	0.6227	1.3113	0.0574	1.2147	0.0878	(0.0087)	0.1404	3.988
2002	0.1126	0.4808	0.6179	1.2834	0.0594	1.1723	0.0877	(0.0242)	0.1520	4.271
2003	0.1128	0.4980	0.6262	1.2958	0.0537	1.2535	0.0870	(0.0104)	0.1466	4.416
2004	0.1085	0.4551	0.6214	1.3100	0.0683	0.9669	0.0828	(0.0207)	0.1466	4.196
2005	0.0976	0.4317	0.6189	1.3172	0.0764	0.7864	0.0741	(0.0316)	0.1364	4.421
2006	0.1038	0.4323	0.6182	1.3145	0.0821	0.7809	0.0790	(0.0918)	0.1658	4.165
2007	0.0996	0.4502	0.6141	1.2910	0.0816	0.7665	0.0771	(0.1001)	0.1557	4.521
2008	0.1393	0.5087	0.6189	1.2689	0.0844	1.0165	0.1098	(0.1444)	0.2047	3.651
2009	0.0969	0.4406	0.6261	1.3342	0.0652	0.8883	0.0727	(0.1817)	0.1680	4.545
Neutrality c	$m_K=M/K$	$m_Y=M/Y$	$m_I=M/I$	$r_{DEBT}=r^*$	$r_{DEBT}=r^*$	$r_{DEBT}=r^*$	$r^*=r^*(US)$	$r^*=r^*(US)$	$r^*=r^*(US)$	$r^*=r^*(US)$
15. Sri Lanka										
1990	5.0168	0.3072	2.7721	(1.6798)	0.0718	1.98	1.7360	63.02	0.9725	49.03
1991	1.4367	0.3271	2.3107	(0.4278)	0.3119	2.01	0.5544	68.85	0.9919	45.26
1992	0.8634	0.3345	2.9540	(0.0955)	0.6733	1.98	0.2189	72.39	0.9970	43.63
1993	0.6689	0.3511	3.3718	0.0036	1.0182	6.44	0.1319	82.71	0.9984	73.29
1994	0.5437	0.3625	3.2617	0.0146	1.0877	10.98	0.1019	93.26	0.9989	137.12
1995	0.5520	0.4269	3.8654	0.0376	1.2632	9.68	0.0843	96.81	0.9991	90.96
1996	0.4824	0.4130	3.7488	0.0539	1.4191	13.30	0.0724	96.81	0.9993	112.47
1997	0.3993	0.4030	4.3597	0.0553	1.6038	12.52	0.0394	104.64	0.9996	0.00
1998	0.3743	0.4014	4.3448	0.0641	1.7446	25.76	0.0359	102.15	0.9996	9.15
1999	0.3516	0.4303	4.6524	0.0716	1.9478	33.44	0.0264	107.73	0.9998	31.44
2000	0.3293	0.4271	4.2518	0.0842	2.0867	37.00	0.0273	108.75	0.9997	34.38
2001	0.3306	0.4335	3.7661	0.1061	2.2087	41.93	0.0285	113.17	0.9997	28.54
2002	0.3294	0.4228	3.7555	0.0440	1.5015	24.20	0.0112	96.74	0.9999	19.39
2003	0.3382	0.4383	3.8866	0.0164	1.1882	24.88	0.0035	96.74	1.0000	18.80
2004	0.3487	0.4568	4.2115	0.0119	1.1438	24.48	(0.0042)	104.60	1.0000	21.60
2005	0.3519	0.4635	4.7477	0.0335	1.4518	20.25	(0.0226)	102.09	1.0002	20.49
2006	0.3469	0.4560	4.3923	0.0495	1.6272	29.36	(0.0037)	107.70	1.0000	20.96
2007	0.3380	0.4364	4.3827	0.0937	2.2146	35.09	0.0085	108.73	0.9999	18.02
2008	0.3026	0.3839	2.7555	0.0791	1.7204	26.60	0.0355	113.18	0.9997	11.44
2009	0.0000	0.0000	0.0000	0.0773	2.0644	28.40	0.0043	114.39	1.0000	13.50

Data source: KEWT 5.11-1 for 17 Europe Area by sector, 1990-2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A9–1 Vietnam: Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + \text{PRI} = \text{bop}$, the rate of change population and unemployment

Cost of capital	$HA_{t+1}^*(r)$	$r^* - HA_{t+1}^*(r)$	$v^* - r^* / (G^* - vY^*)$	CC^*_{REAL}	$CC^*_{REAL(G)}$	$CC^*_{REAL(PRI)}$	$CC^*_{NOMINAL}$	CC^*_{NOMIG}	$CC^*_{NOMIG(P)}$
17. Vietnam	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990	0.8646	(0.0707)	1.1648	(0.0607)	(0.0062)	(0.0014)	0.6816	(0.0739)	1.1666
1991	0.5272	0.1219	1.2358	0.0986	(0.0059)	0.2322	0.5252	(0.0661)	0.9135
1992	0.2677	0.0583	1.7100	0.0341	(0.0003)	0.0630	0.1906	(0.0036)	0.2602
1993	0.1809	0.0286	5.4442	0.0053	(0.0085)	0.0151	0.0385	(0.1134)	0.0856
1994	0.1468	0.0228	11.4614	0.0020	0.0002	0.0009	0.0148	0.0024	0.0059
1995	0.2048	(0.0012)	7.3440	(0.0002)	0.0025	(0.0028)	0.0277	0.0639	(0.0379)
1996	0.1517	(0.0116)	(9.2984)	0.0012	0.0037	(0.0104)	(0.0151)	0.0513	(0.0947)
1997	0.1456	0.0157	#####	(0.0000)	(0.0001)	0.0000	(0.0002)	(0.0019)	(0.0037)
1998	0.1482	0.0158	15.4699	0.0010	0.0023	(0.0045)	0.0106	0.0279	0.0192
1999	0.1386	0.0165	7.6005	0.0022	0.0016	0.0015	0.0204	0.0201	0.0129
2000	0.1340	0.0161	10.1657	0.0016	(0.0021)	0.0035	0.0148	(0.0300)	0.0264
2001	0.1265	0.0160	13.6313	0.0012	0.0037	(0.0005)	0.0104	0.0359	(0.0046)
2002	0.1141	0.0141	(21.7012)	(0.0006)	(0.0006)	(0.0015)	(0.0059)	(0.0077)	(0.0116)
2003	0.1025	0.0126	(5.8290)	(0.0022)	(0.0027)	(0.0026)	(0.0197)	(0.0341)	(0.0202)
2004	0.1015	0.0125	(6.1731)	(0.0020)	(0.0028)	(0.0021)	(0.0185)	(0.0342)	(0.0167)
2005	0.1160	0.0027	(32.6250)	(0.0001)	(0.0004)	(0.0000)	(0.0036)	(0.0208)	(0.0001)
2006	0.1047	0.0114	(13.0237)	(0.0009)	(0.0011)	(0.0011)	(0.0089)	(0.0133)	(0.0107)
2007	0.0939	0.0079	(2.0124)	(0.0039)	(0.0008)	(0.0055)	(0.0506)	(0.0099)	(0.0717)
2008	0.0894	0.0076	(1.9641)	(0.0039)	(0.0007)	(0.0057)	(0.0494)	(0.0097)	(0.0711)
2009	0.0849	0.0083	(2.9083)	(0.0028)	(0.0004)	(0.0045)	(0.0321)	(0.0050)	(0.0478)
Speed and,	$1/\Delta_t^*$	$1/\Delta_t^*$	$1/\Delta_t^*$	I_{actual}	$I_{endoge.}$	difference	Δd	$SPRI - I_{bRI}$	bop
17. Vietnam	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL
1990	17.23	10.92	23.28	0.11	0.13	(0.02)	(0.0306)	(0.1363)	(0.1669)
1991	6.75	11.15	10.16	0.11	0.1172	(0.00)	(0.0261)	(0.0900)	(0.1161)
1992	6.04	14.92	8.77	0.14	0.1442	(0.00)	(0.0198)	(0.0617)	(0.0815)
1993	4.18	9.11	6.46	0.18	0.2151	(0.03)	(0.0478)	(0.0919)	(0.1398)
1994	3.58	14.24	5.68	0.20	0.2118	(0.01)	(0.0157)	(0.1173)	(0.1331)
1995	3.78	20.45	5.36	0.19	0.2760	(0.09)	(0.0054)	(0.0976)	(0.1030)
1996	4.77	19.35	3.86	0.19	0.2863	(0.10)	(0.0019)	(0.1256)	(0.1275)
1997	32.13	16.68	3.83	0.20	0.2895	(0.09)	(0.0175)	(0.0838)	(0.1013)
1998	19.28	21.08	61.25	0.21	0.2959	(0.09)	(0.0013)	(0.0919)	(0.0932)
1999	18.34	23.52	33.00	0.20	0.2779	(0.08)	(0.0016)	(0.0408)	(0.0424)
2000	16.88	20.82	25.57	0.21	0.3002	(0.09)	(0.0285)	(0.0110)	(0.0395)
2001	16.50	32.36	17.23	0.22	0.3152	(0.09)	0.0132	(0.0499)	(0.0367)
2002	15.28	27.23	16.63	0.24	0.3438	(0.11)	(0.0152)	(0.0531)	(0.0684)
2003	14.40	24.65	16.13	0.25	0.3636	(0.11)	(0.0356)	(0.0656)	(0.1011)
2004	14.65	25.14	16.17	0.25	0.3677	(0.11)	(0.0367)	(0.0593)	(0.0960)
2005	15.46	28.81	16.37	0.25	0.3520	(0.10)	(0.0265)	(0.0365)	(0.0631)
2006	15.73	31.01	16.22	0.26	0.3596	(0.10)	(0.0194)	(0.0493)	(0.0687)
2007	12.07	31.77	10.60	0.30	0.4659	(0.17)	(0.0164)	(0.1773)	(0.1938)
2008	12.13	29.94	10.99	0.27	0.4343	(0.17)	(0.0164)	(0.1736)	(0.1901)
2009	14.12	31.31	13.18	0.27	0.3893	(0.12)	(0.0123)	(0.1251)	(0.1374)
Unemployment	n	$I_{EQU}(G) - n$	$I_{EQU}(PRI) - n$	$I_{EQU}(I) - n$	$I_{EQU}(G) - I_{EQU}(PRI) - n$	Unem. rate(actu)	$I_{EQU}(G) - I_{EQU}(PRI) - n$	Infla. rate	
17. Vietnam	under attaining equilibrium	(0.0226)	0.0000	0.0000	0.0000	0.0000	0.0000	0.5207	
1990	0.0225	0.0000	0.0000	0.0000	0.1773	(0.0222)	0.0000	0.0000	0.2781
1991	0.0233	0.0000	0.0000	0.0000	0.0755	(0.0077)	0.0000	0.0000	0.2917
1992	0.0242	0.0000	0.0000	0.0000	(0.0702)	0.0065	0.0000	0.0000	0.2714
1993	0.0233	0.0000	0.0000	0.0000	(0.1260)	0.0126	0.0000	0.0000	0.2272
1994	0.0208	0.0000	0.0000	0.0000	(0.0123)	0.0549	(0.0063)	0.0000	0.0705
1995	0.0113	0.0000	0.0000	0.0000	(0.0297)	(0.0017)	0.0002	0.0000	0.0575
1996	0.0169	0.0000	0.0000	0.0000	(0.0158)	0.0000	(0.0284)	0.0000	0.0317
1997	0.0157	0.0000	0.0000	0.0000	0.0261	(0.0457)	0.0000	0.0724	0.1282
1998	0.0148	0.0000	0.0000	0.0000	0.1014	(0.0109)	0.0000	0.0409	0.1105
1999	0.0143	0.0000	0.0000	0.0000	0.0302	(0.0029)	0.0000	(0.0167)	0.0894
2000	0.0145	0.0000	0.0000	0.0000	(0.0046)	0.0004	0.0000	(0.0040)	0.0782
2001	0.0148	0.0000	0.0000	0.0000	0.0168	(0.0016)	0.0000	0.0382	0.0762
2002	0.0147	0.0000	0.0000	0.0000	(0.0002)	0.0000	0.0000	0.0309	0.0822
2003	0.0145	0.0000	0.0000	0.0000	(0.0245)	0.0022	0.0000	0.0788	0.0847
2004	0.0027	0.0000	0.0000	0.0000	0.0164	(0.0015)	0.0000	0.0826	0.1076
2005	0.0123	0.0000	0.0000	0.0000	0.0168	(0.0015)	0.0000	0.0740	0.1004
2006	0.0119	0.0000	0.0000	0.0000	0.0118	(0.0011)	0.0000	0.0829	0.1039
2007	0.0115	0.0000	0.0000	0.0000	0.0177	(0.0016)	0.0000	0.2313	0.1502
2008	0.0111	0.0000	0.0000	0.0000	(0.0380)	0.0033	0.0000	0.0698	(0.0083)

Data source: KEWT 5.11–1 for 17 Europe Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A9–2 Vietnam: Robustness, endogenous parameters and variables, and neutrality of the financial/market assets to the real assets, using M2, ten year debt yield, and the exchange rate

Robustness	$HA_{\beta}^{+}(\cdot)$	$HA_{\beta}^{+}(\cdot)_{G}$	$HA_{\beta}^{+}(\cdot)_{PRI}$	$HA_{\Omega}^{+}(\cdot)$	$HA_{\Omega}^{+}(\cdot)_{G}$	$HA_{\Omega}^{+}(\cdot)_{PRI}$	$Width_{\Omega}(\cdot)$	$Width_{\Omega}(\cdot)_{G}$	$Width_{\Omega}(\cdot)_{PRI}$	$Width_{HA_{\Omega}(\cdot)}$
17. Vietnam										
1990	0.3211	0.6547	0.2339	0.3180	1.4831	0.2208	0.0578	0.2712	0.0046	0.182
1991	0.2875	0.6582	0.1995	0.3865	1.5133	0.2624	0.1023	0.2801	0.0799	0.265
1992	0.2929	0.6828	0.2016	0.4352	1.4394	0.2988	0.1169	0.2673	0.0930	0.269
1993	0.3652	0.7333	0.2634	0.5825	1.8915	0.3947	0.1407	0.3341	0.1096	0.242
1994	0.4085	0.7242	0.3199	0.7013	1.8784	0.5059	0.1519	0.3141	0.1225	0.217
1995	0.4520	0.7640	0.3662	0.7027	1.5772	0.5775	0.0331	0.1910	0.0991	0.047
1996	0.4990	0.7911	0.4218	0.8165	1.9472	0.7730	0.1335	0.2825	0.1498	0.163
1997	0.5639	0.8214	0.4772	1.1699	2.4393	0.8163	0.1910	0.3350	0.0118	0.163
1998	0.6065	0.8441	0.5186	1.3455	2.7328	0.7790	0.2061	0.3594	0.1908	0.153
1999	0.6382	0.8728	0.5608	1.5326	3.1634	1.2216	0.2251	0.4030	0.1900	0.147
2000	0.6705	0.8946	0.5898	1.7268	3.6660	1.3660	0.2494	0.4649	0.2083	0.144
2001	0.6994	0.9035	0.6258	1.9469	3.8861	1.5480	0.2783	0.4948	0.2328	0.143
2002	0.7182	0.9136	0.6448	2.1343	4.1141	1.7172	0.3006	0.5205	0.2535	0.141
2003	0.7280	0.9195	0.6525	2.2720	4.4845	1.8103	0.3184	0.5659	0.2659	0.140
2004	0.7379	0.9229	0.6618	2.3677	4.7831	1.8607	0.3273	0.5981	0.2696	0.138
2005	0.7434	0.9269	0.6661	2.2006	4.6185	1.6884	0.1333	0.2511	0.1079	0.061
2006	0.7512	0.9308	0.6749	2.4565	5.0864	1.8987	0.3099	0.5819	0.2513	0.126
2007	0.7591	0.9310	0.6901	2.5638	5.1654	2.0133	0.3176	0.5816	0.2609	0.124
2008	0.7449	0.9251	0.6768	2.4473	4.7385	1.9603	0.3010	0.5268	0.2521	0.123
2009	0.7585	0.9267	0.6946	2.6437	5.0272	2.1369	0.3169	0.5495	0.2667	0.120
Endogenous	α	δ_0	β^{+}	Ω	$\delta_A^{+} = (1-\beta^{+})$	$x = r^{+}/g^{+}$	$r^{+} = \alpha/\Omega$	$r^{+} = \alpha/\Omega$	$r^{+} = \alpha/\Omega$	δ_0/α
17. Vietnam										
1990	0.2749	0.2711	0.3027	0.3463	0.09	7.0698	0.7939	0.1962	1.2480	0.986
1991	0.2038	(0.6557)	0.3319	0.3140	0.0783	5.2404	0.6491	0.1943	1.0049	(3.218)
1992	0.1165	(0.5039)	0.3353	0.3574	0.0959	2.4085	0.3259	0.2829	0.3601	(4.326)
1993	0.1054	(0.6925)	0.3999	0.5030	0.1291	1.2250	0.2095	0.1992	0.2174	(6.572)
1994	0.1030	(1.2139)	0.4439	0.6069	0.1178	1.0956	0.1697	0.2047	0.1474	(11.788)
1995	0.1439	(0.7509)	0.4506	0.7067	0.1516	1.1576	0.2037	0.3480	0.1171	(5.210)
1996	0.1239	(0.4809)	0.4792	0.8839	0.1491	0.9029	0.1401	0.2851	0.0594	(3.883)
1997	0.1703	0.8479	0.5888	1.0562	0.1190	0.9990	0.1612	0.2203	0.1289	4.979
1998	0.1994	0.6339	0.6304	1.2158	0.1094	1.0691	0.1640	0.2107	0.1398	3.179
1999	0.2124	0.5373	0.6637	1.3697	0.0935	1.1515	0.1551	0.1962	0.1339	2.530
2000	0.2314	0.4744	0.6951	1.5418	0.0915	1.1091	0.1501	0.1741	0.1369	2.050
2001	0.2462	0.4319	0.7238	1.7287	0.0870	1.0792	0.1424	0.1787	0.1235	1.754
2002	0.2436	0.3897	0.7411	1.9003	0.0890	0.9559	0.1282	0.1692	0.1063	1.600
2003	0.2329	0.3594	0.7503	2.0237	0.0908	0.8536	0.1151	0.1532	0.0939	1.543
2004	0.2404	0.3522	0.7597	2.1082	0.0883	0.8606	0.1140	0.1430	0.0974	1.465
2005	0.2554	0.2948	0.7477	2.1513	0.0888	0.9703	0.1187	0.1412	0.1055	1.155
2006	0.2571	0.3415	0.7700	2.2157	0.0827	0.9287	0.1161	0.1386	0.1029	1.328
2007	0.2408	0.2997	0.7736	2.3642	0.1055	0.6680	0.1018	0.1358	0.0835	1.245
2008	0.2187	0.2949	0.7601	2.2551	0.1042	0.6626	0.0970	0.1459	0.0717	1.348
2009	0.2246	0.2897	0.7751	2.4087	0.0875	0.7441	0.0932	0.1360	0.0716	1.290
Neutrality c	$m_K = M/K$	$m = M/Y$	$m_1 = M/I$	$t_{DEBT} = r^{+}$	$t_{DEBT} = r^{+}$	$t_{DEBT} = r^{+}$	$e^{+} = g^{+}/g^{+}$	$e^{+} = g^{+}/g^{+}$	$e^{+} = g^{+}/g^{+}$	$e^{+} = g^{+}/g^{+}$
17. Vietnam										
1990	0.6625	0.2294	0.8345	(0.3439)	0.5668	394.90	0.7201	8126	0.9999	62322
1991	0.7382	0.2318	1.1373	(0.2491)	0.6162	540.67	0.5818	11501	0.9999	179299
1992	0.6917	0.2442	1.1223	0.0241	1.0738	384.91	0.2526	10565	1.0000	115905
1993	0.4446	0.2236	1.1224	0.0905	1.4321	774.01	0.1430	10843	1.0000	153725
1994	0.3589	0.2178	1.1153	0.0803	1.4735	1267.67	0.1049	11051	1.0000	181833
1995	0.2830	0.2000	1.3895	0.0163	1.0801	727.85	0.1451	11015	1.0000	99420
1996	0.2406	0.2126	1.7167	0.0609	1.4344	952.67	0.0839	11149	1.0000	87312
1997	0.2171	0.2293	1.3464	(0.0170)	0.8943	1544.45	0.1091	12292	1.0000	2489
1998	0.2028	0.2466	1.2369	(0.0200)	0.8781	2344.01	0.1137	13890	1.0000	18421
1999	0.2691	0.3686	1.7355	(0.0281)	0.8190	3492.83	0.1059	14028	1.0000	29704
2000	0.2935	0.4525	1.9556	(0.0446)	0.7030	4011.07	0.0999	14514	1.0000	36501
2001	0.3056	0.5283	2.1456	(0.0482)	0.6614	3141.22	0.0832	15084	1.0000	37818
2002	0.2835	0.5388	2.2120	(0.0376)	0.7068	2191.68	0.0517	15403	1.0000	37457
2003	0.3095	0.6263	2.6891	(0.0203)	0.8238	2057.63	0.0316	15646	1.0000	38607
2004	0.3348	0.7059	2.9361	(0.0168)	0.8524	2433.86	0.0271	15777	1.0000	38871
2005	0.3666	0.7886	3.0882	(0.0084)	0.9292	2242.05	0.0220	15916	1.0000	30889
2006	0.3982	0.8823	3.4311	(0.0043)	0.9633	3601.47	0.0334	16054	1.0000	35102
2007	0.4767	1.1271	4.6811	0.0100	1.0978	3393.51	0.0332	16114	1.0000	35098
2008	0.4646	1.0477	4.7901	0.0608	1.6269	2936.10	0.0227	16977	1.0000	29733
2009	0.0000	0.0000	0.0000	(0.0932)	0.0000	2847.44	0.0249	17941	1.0000	25823

Data source: KEWT 5.11–1 for 17 Europe Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A10–1 Mexico: Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + \text{PRI} = \text{bop}$, the rate of change population and unemployment

Cost of caplt	$\text{HA}_{\text{T}(\text{I})}$	$\text{r}^* - \text{HA}_{\text{T}(\text{I})}$	$\text{v}^* - \text{r}^* / \text{G}^* - \text{v}^*$	$\text{CC}^*_{\text{REAL}}$	$\text{CC}^*_{\text{REAL}(\text{G})}$	$\text{CC}^*_{\text{REAL}(\text{PRI})}$	$\text{CC}^*_{\text{NOMINAL}}$	$\text{CC}^*_{\text{NOMIG}(\text{G})}$	$\text{CC}^*_{\text{NOMIG}(\text{PRI})}$
5. Mexico	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990	0.0496	0.0246	4.5553	0.0054	(0.0194)	0.0138	0.0163	(0.0901)	0.0375
1991	0.0827	0.0497	1.6110	0.0309	0.0474	0.0246	0.0822	0.1817	0.0601
1992	0.0939	0.0796	1.5201	0.0524	0.2055	0.0359	0.1141	0.2586	0.0847
1993	0.0725	0.0203	12.8655	0.0016	0.0146	(0.0022)	0.0072	0.0843	(0.0097)
1994	0.0713	0.0187	254.2586	0.0001	0.0092	(0.0024)	0.0004	0.0515	(0.0111)
1995	0.0892	0.0178	9.1587	0.0019	0.0046	0.0006	0.0117	0.0402	0.0034
1996	0.0746	0.0217	6.3300	0.0034	0.0069	(0.0003)	0.0152	0.0413	0.0179
1997	0.1782	(0.0186)	3.3314	(0.0056)	0.0014	(0.0046)	0.0479	0.0133	0.0505
1998	0.1111	(0.0107)	15.8418	(0.0007)	(0.0005)	0.0000	0.0063	(0.0049)	(0.0012)
1999	0.0793	0.0162	44.8056	0.0004	0.0001	(0.0001)	0.0021	0.0006	0.0074
2000	0.0983	0.0272	2.1545	0.0126	0.0006	0.0211	0.0582	0.0061	0.0700
2001	0.1089	0.0326	1.6763	0.0195	0.0019	0.0318	0.0844	0.0148	0.1057
2002	0.1246	0.0623	1.2359	0.0504	(0.0033)	0.1897	0.1512	(0.0283)	0.2205
2003	0.1134	(0.0086)	5.2598	(0.0016)	0.0012	(0.0001)	0.0199	0.0140	0.0113
2004	0.0824	0.0136	4.3854	0.0031	0.0010	(0.0005)	0.0219	0.0125	0.0243
2005	0.1413	0.0133	4.4846	0.0030	0.0019	(0.0004)	0.0345	0.0308	0.0356
2006	0.1597	0.0142	3.6121	0.0039	(0.0000)	(0.0161)	0.0481	(0.0004)	0.0825
2007	0.2758	0.1020	1.1106	0.0918	(0.0004)	0.6284	0.3401	(0.0058)	0.5307
2008	0.1400	0.0128	4.5519	0.0028	0.0000	0.0043	0.0336	0.0007	0.0471
2009	0.0794	0.0098	62.6562	0.0002	(0.0013)	0.0008	0.0014	(0.0153)	0.0066
Speed and,	$1/\lambda^*$	$1/2\lambda^*$	$1/2\lambda^*_{\text{PRI}}$	i_{actual}	$i_{\text{endoge.}}$	difference	Δd	$\text{SPRI} - \text{bop}$	
5. Mexico	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL
1990	31.74	13.62	37.56	0.1495	0.1204	0.0291	(0.0302)	(0.0217)	(0.0519)
1991	44.24	44.77	44.84	0.1606	0.0903	0.0703	0.0359	(0.1049)	(0.0690)
1992	39.09	53.77	35.94	0.1676	0.0946	0.0730	0.0510	(0.1444)	(0.0935)
1993	33.69	29.45	35.46	0.1444	0.1539	(0.0095)	0.0057	(0.0810)	(0.0753)
1994	29.59	25.58	31.17	0.1502	0.1651	(0.0149)	(0.0003)	(0.0862)	(0.0865)
1995	43.79	20.29	70.15	0.1242	0.1692	(0.0450)	(0.0059)	(0.0152)	(0.0210)
1996	106.26	23.49	6.65	0.1488	0.1338	0.0150	(0.0026)	(0.0220)	(0.0247)
1997	5.41	18.17	6.74	0.1518	0.2108	(0.0590)	(0.0120)	(0.0238)	(0.0358)
1998	14.54	16.30	4.70	0.1644	0.1849	(0.0205)	(0.0162)	(0.0431)	(0.0593)
1999	166.79	15.94	7.61	0.1686	0.1597	0.0089	(0.0176)	(0.0301)	(0.0478)
2000	112.54	16.55	584.36	0.1803	0.1108	0.0695	(0.0152)	(0.0379)	(0.0531)
2001	97.01	19.38	528.47	0.1647	0.0937	0.0710	(0.0086)	(0.0426)	(0.0512)
2002	101.94	15.93	106.32	0.1642	0.0549	0.1093	(0.0217)	(0.0226)	(0.0444)
2003	10.38	16.97	10.44	0.1473	0.1618	(0.0145)	(0.0111)	(0.0236)	(0.0348)
2004	130.82	16.68	15.91	0.1625	0.1305	0.0321	(0.0107)	(0.0264)	(0.0371)
2005	48.87	16.89	2.33	0.1496	0.2163	(0.0666)	(0.0072)	(0.0260)	(0.0331)
2006	26.47	15.53	12.67	0.1549	0.2379	(0.0830)	(0.0154)	(0.0181)	(0.0335)
2007	148.40	15.92	(81.34)	0.1424	0.0553	0.0872	(0.0151)	0.2384	0.2233
2008	21.38	17.11	87.81	0.1629	0.2408	(0.0779)	(0.0142)	(0.0250)	(0.0391)
2009	20.43	17.42	29.52	0.1607	0.2006	(0.0399)	(0.0207)	(0.0122)	(0.0330)
Unemploymk	n	$\text{DEQUI}(\text{G}) - \text{n}$	$\text{DEQUI}(\text{PRI}) - \text{n}$	$\text{DEQUI} - \text{n}$	$\text{DEQUI}(\text{G}) - \text{DEQUI}(\text{PRI}) - \text{n}$		Unem.rate(act)	$\text{BCPI}(\text{actual})$	Infla. rate
5. Mexico	under attaining equilibrium						actual: to population		
1990	0.0192	0.0000	0.0000	0.0000	0.0000	(0.0158)	0.2642		0.7754
1991	0.0189	0.0000	0.0000	0.0000	(0.1985)	0.0252	(0.0099)	0.2270	0.6503
1992	0.0272	0.0000	0.0000	0.0000	(0.1356)	0.0211	(0.0135)	0.1557	0.5204
1993	0.0187	0.0000	0.0000	0.0000	0.1054	(0.0189)	(0.0108)	0.0983	0.5297
1994	0.0186	0.0000	0.0000	0.0000	(0.0464)	0.0073	(0.0158)	0.0693	0.5063
1995	0.0158	0.0000	0.0000	0.0000	0.0963	(0.0160)	(0.0212)	0.3495	0.4996
1996	0.0183	0.0000	(0.0193)	0.0000	0.0217	(0.0225)	(0.0167)	0.3429	0.3064
1997	0.0156	0.0000	(0.0256)	(0.0286)	(0.0207)	(0.0226)	(0.0117)	0.2071	0.2330
1998	0.0170	0.0000	(0.0180)	(0.0270)	(0.0006)	(0.0179)	(0.0104)	0.1583	0.2157
1999	0.0158	0.0000	(0.0168)	0.0000	(0.0691)	(0.0066)	(0.0081)	0.1660	0.1849
2000	0.0146	0.0000	0.0000	0.0000	(0.1102)	0.0177	(0.0072)	0.0953	0.1309
2001	0.0132	0.0000	0.0000	0.0000	(0.0521)	0.0094	(0.0081)	0.0640	0.0702
2002	0.0119	0.0000	0.0000	0.0000	(0.1327)	0.0254	(0.0090)	0.0498	0.0306
2003	0.0111	0.0000	(0.0121)	(0.0181)	0.2028	(0.0572)	(0.0108)	0.0457	0.0984
2004	0.0105	0.0000	(0.0115)	0.0000	0.0386	(0.0180)	(0.0122)	0.0471	0.0818
2005	0.0104	0.0000	(0.0114)	0.0000	0.0288	(0.0161)	(0.0162)	0.0395	0.0809
2006	0.0103	0.0000	(0.0303)	0.0000	(0.0190)	(0.0273)	(0.0162)	0.0360	0.0697
2007	0.0101	0.0000	(0.0301)	0.0000	(0.1857)	(0.0003)	(0.0167)	0.0396	(0.0241)
2008	0.0100	0.0000	0.0000	0.0000	0.1769	(0.0347)	(0.0180)	0.0520	0.0752
2009	0.0097	0.0000	0.0000	0.0000	(0.0486)	0.0076	(0.0248)	0.0530	0.0902

Data source: KEWT 5.11–1 for 17 Europe Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A10–2 Mexico: Robustness, endogenous parameters and variables, and neutrality of the financial/market assets to the real assets, using M2, ten year debt yield, and the exchange rate

Robustness	$HA_{\Omega}^*(G)$	$HA_{\Omega}^*(OG)$	$HA_{\Omega}^*(OPR)$	$HA_{\Omega}^*(G)$	$HA_{\Omega}^*(OG)$	$HA_{\Omega}^*(OPR)$	$Width_{\Omega}(G)$	$Width_{\Omega}(OG)$	$Width_{\Omega}(OPR)$	$Wid(HA_{\Omega}(G))$
5. Mexico										
1990	0.6316	0.7246	0.6151	2.2381	3.2950	2.1718	0.3658	0.5206	0.3558	0.163
1991	0.6129	0.6770	0.6005	2.0635	1.8286	2.1630	0.3347	0.2921	0.3505	0.162
1992	0.6024	0.6289	0.5973	2.1703	5.4083	2.0624	0.4173	0.9452	0.4011	0.192
1993	0.5578	0.6182	0.5464	1.4214	1.4732	1.4157	0.2474	0.2477	0.2479	0.174
1994	0.5653	0.6186	0.5549	1.4452	1.5515	1.4265	0.2500	0.2597	0.2483	0.173
1995	0.5449	0.6359	0.5274	1.2553	1.4866	1.2212	0.2056	0.2295	0.2022	0.164
1996	0.5182	0.6228	0.4932	1.2378	1.5636	0.8877	0.2196	0.2594	0.0401	0.177
1997	0.5165	0.6230	0.4978	0.8266	1.4412	0.7909	0.1348	0.2236	0.1147	0.163
1998	0.5112	0.6280	0.4913	0.8633	1.5077	0.8804	0.1238	0.2425	0.0398	0.143
1999	0.5201	0.6372	0.4898	1.1661	1.5024	0.8822	0.1951	0.2326	0.0400	0.167
2000	0.5283	0.6471	0.4978	1.2381	1.5942	1.2529	0.1949	0.2349	0.1975	0.157
2001	0.5381	0.6594	0.5042	1.2851	1.7788	1.2479	0.1900	0.2459	0.1860	0.148
2002	0.5559	0.6710	0.5185	1.5076	1.9816	6.1009	0.2036	0.2588	0.7074	0.135
2003	0.5032	0.6789	0.4555	0.8512	1.7723	0.7691	0.1024	0.2231	0.0362	0.120
2004	0.5256	0.7129	0.4664	1.1550	1.9944	0.8047	0.1575	0.2388	0.0375	0.136
2005	0.5565	0.7455	0.4950	1.1401	1.9766	0.8572	0.1526	0.2311	0.0386	0.134
2006	0.5968	0.7697	0.5340	1.2715	2.3748	0.8042	0.1639	0.2719	0.1626	0.129
2007	0.6290	0.7877	0.5577	1.4067	2.6482	(4.2045)	0.1695	0.2983	0.5495	0.121
2008	0.6190	0.8098	0.5481	1.4088	2.8077	1.1112	0.1758	0.3093	0.1467	0.125
2009	0.6403	0.8171	0.5719	1.7117	3.3886	1.3569	0.2062	0.3658	0.1717	0.120
Endogenous	α	δ_0	β^*	Ω	$RA^*=(1-\beta^*)$	$X^*=(1-b^*)$	$r^*=\alpha/\Omega$	$r^*_{OG}=\alpha_{OG}/\Omega_{OG}$	$r^*_{PR}=\alpha_{PR}/\Omega_{PR}$	$\delta_0\alpha^*$
5. Mexico										
1990	0.1110	0.5730	0.7196	1.4954	0.0338	1.2813	0.0742	(0.0007)	0.0899	5.162
1991	0.1707	0.7274	0.7171	1.2886	0.0255	2.6367	0.1325	0.2540	0.1061	4.262
1992	0.2038	0.8438	0.7368	1.1745	0.0249	2.9225	0.1735	0.2929	0.1490	4.141
1993	0.1031	0.7810	0.6175	1.1106	0.0589	1.0843	0.0928	0.1922	0.0716	7.578
1994	0.1030	0.7262	0.6214	1.1453	0.0625	1.0039	0.0899	0.1561	0.0756	7.049
1995	0.1120	0.8735	0.5895	1.0468	0.0695	1.1226	0.1070	0.1781	0.0904	7.801
1996	0.0924	1.1285	0.5814	0.9587	0.0500	1.1876	0.0964	0.1510	0.0932	12.216
1997	0.1473	(0.8189)	0.4890	0.9228	0.1077	1.4289	0.1596	0.1611	0.1593	(5.559)
1998	0.0959	0.1813	0.4859	0.9550	0.0951	1.0674	0.1004	0.1452	0.0890	1.890
1999	0.0925	1.1210	0.5662	0.9683	0.0693	1.0228	0.0955	0.1604	0.0768	12.118
2000	0.1217	1.0859	0.5885	0.9697	0.0456	1.8662	0.1255	0.1466	0.1184	8.924
2001	0.1399	1.0272	0.6022	0.9888	0.0373	2.4787	0.1415	0.1196	0.1495	7.342
2002	0.1878	0.9924	0.6526	1.0048	0.0191	5.2387	0.1869	0.0745	0.2343	5.284
2003	0.0965	(0.2288)	0.4833	0.9214	0.0836	1.2348	0.1048	0.1403	0.0897	(2.370)
2004	0.0952	1.0321	0.5633	0.9919	0.0570	1.2954	0.0960	0.1395	0.0761	10.840
2005	0.1611	0.8708	0.5786	1.0418	0.0911	1.2870	0.1546	0.1950	0.1358	5.407
2006	0.2030	0.6751	0.6171	1.1678	0.0911	1.3828	0.1739	0.1496	0.1849	3.325
2007	0.3880	0.9683	0.6989	1.0270	0.0166	10.0450	0.3778	0.1347	0.5138	2.496
2008	0.1973	0.5536	0.6393	1.2912	0.0869	1.2815	0.1528	0.1452	0.1570	2.806
2009	0.1359	0.3930	0.6667	1.5232	0.0669	1.0162	0.0892	0.0969	0.0850	2.891
Neutrality c	$m_K=M/K$	$m_M=M/Y$	$m_I=M/\Pi$	$f_{DEBT}=r^*$	f_{DEBT}/r^*	$(e_{US}/gy)^{**}$	$r^*=r^*(US)$	$e^*(US)$	$e_{US}/e^*(US)$	e_{US}/y^{**}
5. Mexico						$gy^{**}=gy^*/gy^*(US)$	$e^*(US)=e(US)/(r^*-r^*(US))$	$y^{**}=y^*/y^*(US)$		
1990	0.2933	0.4386	3.9512	0.7258	10.7771	0.4656	0.0005	2.946	0.9998	4.2260
1991	0.3409	0.4394	2.5741	0.5675	5.2849	0.4611	0.0651	3.136	0.9792	2.6458
1992	0.3518	0.4132	2.0275	0.4265	3.4582	0.3938	0.1001	3.216	0.9689	2.6471
1993	0.3741	0.4345	4.0320	0.4572	5.9273	0.4874	0.0263	3.132	0.9916	1.2626
1994	0.3782	0.4332	2.053	0.4351	5.8370	1.1506	0.0251	3.350	0.9953	2.8899
1995	0.4311	0.4513	4.0305	0.4104	4.8375	1.1435	0.0484	7.691	0.9937	0.7959
1996	0.4893	0.4691	5.0780	0.2317	3.4050	1.8500	0.0401	7.891	0.9949	0.0351
1997	0.4894	0.4516	3.0655	0.0548	1.3430	1.1531	0.1075	8.191	0.9869	9.0218
1998	0.5087	0.4859	5.0649	0.1046	2.0409	2.1624	0.0502	9.915	0.9949	4.8083
1999	0.5187	0.5022	5.4292	0.1056	2.1050	3.6817	0.0463	9.561	0.9952	0.0001
2000	0.5274	0.5114	4.2029	0.0326	1.2600	6.0698	0.0753	9.648	0.9922	0.0655
2001	0.5594	0.5532	3.9541	(0.0387)	0.7266	5.0717	0.0822	9.225	0.9911	0.2772
2002	0.5862	0.5890	3.1360	(0.0856)	0.5419	7.3456	0.1104	10.423	0.9894	1.6813
2003	0.5459	0.5030	5.2099	(0.0150)	0.8570	1.8902	0.0213	11.257	0.9981	6.2433
2004	0.5236	0.5193	5.4542	(0.0060)	0.9938	3.2092	0.0090	11.274	0.9992	0.0056
2005	0.4775	0.4975	3.0890	(0.0604)	0.6093	1.6669	0.0579	10.836	0.9947	0.0897
2006	0.4321	0.5047	2.4857	(0.0900)	0.4826	2.3781	0.0912	10.972	0.9917	0.8610
2007	0.4456	0.4576	1.1706	(0.2999)	0.2062	11.6966	0.3091	11.175	0.9723	0.2518
2008	0.4227	0.5458	2.7665	(0.0648)	0.5759	2.8855	0.0785	13.617	0.9942	1.8799
2009	0.3894	0.5931	4.3639	0.0108	1.1207	3.0238	0.0209	13.080	0.9984	3.3529

Data source: KEWT 5.11–1 for 17 Europe Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A11-1 Argentina: Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + \text{PRI} = \text{bop}$, the rate of change population and unemployment

Cost of capit	$\text{HA}_{T=1}$	$r^* - \text{HA}_{T=1}$	$v^* = r^* / (G^* - \text{bop})$	$\text{CC}^*_{\text{REAL}}$	$\text{CC}^*_{\text{REAL}(G)}$	$\text{CC}^*_{\text{REAL}(\text{PRI})}$	$\text{CC}^*_{\text{NOMINAL}}$	$\text{CC}^*_{\text{NOM}(G)}$	$\text{CC}^*_{\text{NOM}(\text{PRI})}$
1. Argentina	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990	0.1334	0.0067	1.8069	0.0037	0.0002	0.0363	0.0776	0.0004	0.2236
1991	0.2084	0.0399	1.5120	0.0264	0.0022	0.0511	0.1642	0.0101	0.3466
1992	0.2349	0.0483	1.3936	0.0347	0.0080	0.0561	0.2033	0.0408	0.3434
1993	0.1499	0.0259	2.0801	0.0125	0.0024	0.0196	0.0845	0.0156	0.1341
1994	0.1355	0.0235	2.2994	0.0102	0.0021	0.0154	0.0692	0.0150	0.1019
1995	0.1654	0.0034	3.1498	0.0011	0.0034	0.0071	0.0536	0.0246	0.0611
1996	0.1055	0.0461	7.6031	0.0061	(0.0009)	(0.0001)	0.0199	(0.0106)	0.0602
1997	0.1125	0.0124	11.6525	0.0011	(0.0002)	(0.0007)	0.0107	(0.0019)	0.0222
1998	0.0890	0.0119	(24.4703)	(0.0005)	(0.0003)	(0.0007)	(0.0041)	(0.0030)	(0.0061)
1999	0.0569	0.0100	(5.1971)	(0.0019)	(0.0040)	(0.0009)	(0.0129)	(0.0337)	(0.0054)
2000	0.0542	0.0096	(7.2049)	(0.0013)	(0.0033)	(0.0004)	(0.0089)	(0.0254)	(0.0023)
2001	0.0450	0.0095	(11.9095)	(0.0008)	(0.0046)	0.0017	(0.0046)	(0.0356)	0.0085
2002	0.1308	0.0229	1.7285	0.0132	(0.0045)	0.0352	0.0889	(0.0527)	0.1598
2003	0.1452	0.0187	1.9334	0.0097	(0.0019)	0.0207	0.0847	(0.0254)	0.1420
2004	0.1617	0.0165	2.2566	0.0073	0.0008	0.0107	0.0790	0.0084	0.1178
2005	0.1765	0.0181	2.0738	0.0087	0.0000	0.0130	0.0939	0.0002	0.1431
2006	0.2131	0.0206	1.9131	0.0107	(0.0013)	0.0168	0.1221	(0.0145)	0.1911
2007	0.2214	0.0199	1.9578	0.0101	(0.0021)	0.0164	0.1232	(0.0258)	0.1965
2008	0.2423	0.0212	1.8739	0.0113	(0.0023)	0.0198	0.1406	(0.0342)	0.2271
2009	0.1881	0.0269	1.5929	0.0169	(0.0100)	0.0607	0.1350	(0.1475)	0.2911
Speed and,	$1/\lambda$	$1/\lambda_G$	$1/\lambda_{\text{PRI}}$	I_{actual}	$\text{I}_{\text{endoge.}}$	difference	Δd	$\text{SPRI} - \text{I}_{\text{PRI}}$	bop
1. Argentina	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL
1990	8.41	38.11	9.99	0.0096	0.0997	(0.0901)	(0.0030)	0.0424	0.0394
1991	9.83	33.43	10.29	0.0965	0.0948	0.0016	(0.0048)	0.0082	0.0034
1992	9.87	41.50	10.90	0.1131	0.0900	0.0231	(0.0003)	(0.0236)	(0.0239)
1993	6.55	23.64	8.83	0.1535	0.1217	0.0318	(0.0074)	(0.0334)	(0.0408)
1994	4.54	21.13	8.37	0.1606	0.1267	0.0339	(0.0081)	(0.0420)	(0.0501)
1995	3.06	19.75	4.33	0.1324	0.1886	(0.0561)	(0.0056)	(0.0171)	(0.0228)
1996	37.47	14.55	6.03	0.1338	0.2005	(0.0667)	(0.0196)	(0.0078)	(0.0275)
1997	30.61	15.86	3.58	0.1435	0.2131	(0.0696)	(0.0152)	(0.0294)	(0.0446)
1998	20.38	17.11	37.99	0.1482	0.2153	(0.0671)	(0.0142)	(0.0373)	(0.0515)
1999	21.20	15.93	27.96	0.1341	0.1836	(0.0495)	(0.0294)	(0.0155)	(0.0450)
2000	22.12	18.52	26.24	0.1206	0.1799	(0.0593)	(0.0246)	(0.0089)	(0.0335)
2001	25.84	18.35	32.55	0.1058	0.1608	(0.0550)	(0.0335)	0.0173	(0.0162)
2002	35.30	14.54	63.10	0.0889	0.1597	(0.0708)	(0.0472)	0.1271	0.0799
2003	29.91	17.18	47.96	0.1120	0.1866	(0.0746)	(0.0286)	0.0804	0.0518
2004	25.32	22.59	31.81	0.1419	0.2295	(0.0876)	(0.0047)	0.0201	0.0154
2005	26.80	20.70	34.96	0.1587	0.2272	(0.0684)	(0.0102)	0.0356	0.0254
2006	28.83	17.24	41.59	0.1728	0.2393	(0.0665)	(0.0204)	0.0521	0.0317
2007	28.22	15.28	43.10	0.1791	0.2469	(0.0678)	(0.0276)	0.0507	0.0232
2008	30.17	13.52	53.36	0.1715	0.2456	(0.0741)	(0.0347)	0.0636	0.0289
2009	37.17	7.25	110.81	0.1548	0.1645	(0.0097)	(0.1000)	0.1860	0.0860
Unemployment	n	$\text{DeQUIT}(G) - \text{DeQUIT}(\text{PRI}) - n$	$\text{DeQUIT}(\text{PRI}) - n$	$\text{DeQUIT}(G) - n$	$\text{DeQUIT}(G) - \text{DeQUIT}(\text{PRI}) - n$	$\text{DeQUIT}(\text{PRI}) - n$	Unem. rate (act)	$\text{DeQUIT}(\text{act})$	Infla. rate
1. Argentina	under attaining equilibrium						actual; to population		
1990	0.0140	0.0000	0.0000	0.0000	0.0000	0.0000	(0.0414)	2.8000	0.3433
1991	0.0135	0.0000	0.0000	0.0000	(0.0555)	0.0096	(0.0284)	1.7206	0.2601
1992	0.0136	0.0000	0.0000	0.0000	(0.0175)	0.0032	(0.0324)	0.2485	0.2217
1993	0.0135	0.0000	0.0000	0.0000	(0.0586)	0.0110	(0.0410)	0.1073	0.2041
1994	0.0133	0.0000	0.0000	0.0000	0.0210	(0.0042)	(0.0527)	0.0409	0.1765
1995	0.0149	0.0000	0.0000	(0.0126)	0.0419	(0.0082)	(0.0720)	0.0341	0.1751
1996	0.0126	0.0000	(0.0127)	0.0274	0.0503	(0.0221)	(0.0747)	0.0020	0.0590
1997	0.0113	0.0000	(0.0143)	0.0000	0.0424	(0.0218)	(0.0603)	0.0050	0.0800
1998	0.0123	0.0000	0.0000	0.0000	(0.0321)	0.0053	(0.0545)	0.0089	0.0945
1999	0.0119	0.0000	0.0000	0.0000	(0.0680)	0.0117	(0.0608)	(0.0118)	0.1004
2000	0.0109	0.0000	0.0000	0.0000	(0.0120)	0.0022	(0.0662)	(0.0089)	0.1013
2001	0.0103	0.0000	0.0000	0.0000	(0.0281)	0.0053	(0.0815)	(0.0110)	0.2676
2002	0.0096	0.0000	0.0000	0.0000	(0.0764)	0.0149	(0.0788)	0.2588	0.4939
2003	0.0090	0.0000	0.0000	0.0000	0.0747	(0.0159)	(0.0756)	0.1349	0.1728
2004	0.0092	0.0000	0.0000	0.0000	0.0031	(0.0006)	(0.0612)	0.0439	0.0513
2005	0.0094	0.0000	0.0000	0.0000	(0.0102)	0.0196	(0.0522)	0.0834	0.0435
2006	0.0098	0.0000	0.0000	0.0000	(0.1229)	0.0267	(0.0459)	0.1090	0.0657
2007	0.0097	0.0000	0.0000	0.0000	(0.0382)	0.0096	(0.0383)	0.0884	0.0906
2008	0.0099	0.0000	0.0000	0.0000	(0.0576)	0.0151	(0.0356)	0.0862	0.0888
2009	0.0100	0.0000	0.0000	0.0000	(0.0285)	0.0080	(0.0392)	0.0625	0.0981

Data source: KEWT 5.11-4 for 19 Rest Area by sector, 1990-2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A11-2 Argentina: Robustness, endogenous parameters and variables, and neutrality of the financial/market assets to the real assets, using M2, ten year debt yield, and the exchange rate

Robustness	$HA_{\beta}^+ (i)$	$HA_{\beta}^+ (iG)$	$HA_{\beta}^+ (iPRI)$	$HA_{\Omega}^+ (i)$	$HA_{\Omega}^+ (iG)$	$HA_{\Omega}^+ (iPRI)$	$Width_{\Omega} (i)$	$Width_{\Omega} (iG)$	$Width_{\Omega} (iPRI)$	$Width_{HA_{\Omega} (i)}$
1. Argentina	G	G	PRI	G	G	PRI	G	G	PRI	G
1990	0.4537	0.7814	0.2687	0.7791	4.8757	0.3888	0.0625	0.6267	0.0834	0.080
1991	0.2968	0.5857	0.1935	0.4498	1.6145	0.2515	0.0904	0.2341	0.0624	0.201
1992	0.3134	0.5672	0.2286	0.4816	1.4098	0.3106	0.0944	0.2092	0.0710	0.196
1993	0.3943	0.6172	0.3143	0.6771	1.6092	0.4803	0.1194	0.2307	0.0943	0.176
1994	0.4264	0.6390	0.3517	0.7710	1.6973	0.5729	0.1302	0.2385	0.1057	0.169
1995	0.4772	0.6735	0.4161	0.8055	1.8581	0.7019	0.0556	0.2697	0.1281	0.069
1996	0.5360	0.7203	0.4622	1.3656	2.0967	0.7535	0.3458	0.2742	0.0111	0.253
1997	0.5626	0.7491	0.4971	1.2183	2.3443	0.8582	0.1692	0.2853	0.0672	0.139
1998	0.6011	0.7680	0.5445	1.4666	2.6814	1.2077	0.2051	0.3356	0.1767	0.140
1999	0.6364	0.7841	0.5832	1.8227	3.2770	1.5169	0.2425	0.3987	0.2092	0.133
2000	0.6624	0.8007	0.6113	2.0325	3.6918	1.6803	0.2546	0.4261	0.2177	0.125
2001	0.6930	0.8205	0.6435	2.4114	4.3252	2.0225	0.2858	0.4787	0.2464	0.119
2002	0.7252	0.8398	0.6758	2.1917	4.3148	1.8645	0.2475	0.4593	0.2147	0.113
2003	0.7089	0.8440	0.6500	1.9523	3.8699	1.5665	0.2166	0.3978	0.1798	0.111
2004	0.7082	0.8401	0.6526	1.8551	3.7441	1.4554	0.2086	0.3889	0.1701	0.112
2005	0.7091	0.8234	0.6614	1.8110	3.5591	1.4415	0.2055	0.3766	0.1690	0.113
2006	0.7155	0.8080	0.6764	1.7262	3.2522	1.3957	0.1996	0.3553	0.1657	0.116
2007	0.7069	0.7932	0.6709	1.6516	3.0255	1.3498	0.1913	0.3321	0.1602	0.116
2008	0.6988	0.7796	0.6641	1.5561	2.7096	1.2865	0.1827	0.3027	0.1546	0.117
2009	0.6828	0.7770	0.6382	1.6709	3.7019	1.3860	0.1985	0.4174	0.1671	0.119
Endogenous	α	δ_a	β^*	Ω	$\beta_A^* = (1-\beta^*)$	$x = r^*/g_Y$	$r^* = \alpha/\Omega$	$r^*_G = \alpha_G/\Omega_G$	$r^*_{PRI} = \alpha_{PRI}/\Omega_{PRI}$	δ_a/α
1. Argentina	G	G	PRI	G	G	G	G	G	PRI	G
1990	0.1040	(1.1836)	0.4659	0.7418	0.0532	2.2393	0.1402	0.0389	0.3101	(11.383)
1991	0.0937	(0.4180)	0.3347	0.3774	0.0631	2.9531	0.2483	0.0728	0.4384	(4.461)
1992	0.1132	(0.5372)	0.3550	0.3904	0.0581	3.5498	0.2833	0.1100	0.4270	(4.747)
1993	0.1015	(1.0384)	0.4330	0.5772	0.0690	1.9258	0.1758	0.1042	0.2264	(10.231)
1994	0.1045	(2.0764)	0.4659	0.6570	0.0677	1.7696	0.1590	0.1113	0.1895	(19.874)
1995	0.1332	(2.3289)	0.4822	0.7894	0.0976	1.4652	0.1688	0.1323	0.1885	(17.479)
1996	0.1440	1.1002	0.6240	0.9506	0.0754	1.1514	0.1515	0.1307	0.1624	7.637
1997	0.1371	0.7392	0.5881	1.0973	0.0878	1.0939	0.1249	0.1285	0.1231	5.393
1998	0.1305	0.5180	0.6307	1.2942	0.0795	0.9607	0.1008	0.1119	0.0955	3.970
1999	0.1036	0.3923	0.6730	1.5504	0.0601	0.8386	0.0668	0.0673	0.0666	3.785
2000	0.1102	0.3475	0.6978	1.7265	0.0544	0.8781	0.0639	0.0594	0.0660	3.152
2001	0.1086	0.3147	0.7321	1.9918	0.0431	0.9225	0.0545	0.0443	0.0596	2.897
2002	0.2866	0.4493	0.7562	1.8652	0.0389	2.3728	0.1536	0.0607	0.2035	1.568
2003	0.2834	0.4582	0.7333	1.7296	0.0498	2.0713	0.1639	0.0932	0.2039	1.617
2004	0.3000	0.4708	0.7279	1.6831	0.0625	1.7958	0.1783	0.1036	0.2187	1.569
2005	0.3197	0.4980	0.7288	1.6425	0.0616	1.9313	0.1947	0.0952	0.2463	1.558
2006	0.3679	0.5526	0.7339	1.5743	0.0637	2.0952	0.2337	0.0972	0.3026	1.502
2007	0.3656	0.5698	0.7244	1.5156	0.0680	2.0441	0.2412	0.0959	0.3130	1.559
2008	0.3771	0.6127	0.7161	1.4311	0.0697	2.1443	0.2635	0.1106	0.3406	1.625
2009	0.3143	0.5787	0.7111	1.4616	0.0475	2.6866	0.2150	(0.0000)	0.3391	1.841
Neutrality c	$m_K = M/K$	$m_Y = M/Y$	$m_I = M/I$	$r_{DEBT} - r^*$	$r_{DEBT} - r^*$	$(e_{US}/g_Y)^*$	$r^* - r^* (US)$	$e^* (US)$	$e_{US}/e^* (US)$	e_{US}/y^{**}
1. Argentina	G	G	G	G	G	G	G	G	G	G
1990	0.1407	0.1044	1.004	0.2098	2.4970	0.0564	0.0664	0.6249	0.8937	5.1382
1991	0.2543	0.0960	1.024	0.0517	1.2082	0.0663	0.1810	1.1795	0.8466	2.5638
1992	0.3200	0.1278	1.130	(0.0133)	0.9531	0.0598	0.2099	1.2004	0.8251	2.1875
1993	0.3700	0.2135	2.104	0.0542	1.3081	0.1339	0.1093	1.1078	0.9013	4.3402
1994	0.3513	0.2308	2.209	0.0410	1.2577	0.1992	0.0942	1.0937	0.9138	6.0376
1995	0.2599	0.2051	1.539	0.0097	1.0575	0.1039	0.1102	1.1102	0.9007	5.1443
1996	0.2436	0.2316	1.608	(0.0464)	0.6935	0.1650	0.0953	1.0948	0.9129	3.3288
1997	0.2465	0.2704	1.973	(0.0325)	0.7397	0.1772	0.0728	1.0723	0.9321	0.4044
1998	0.2270	0.2938	2.252	0.0056	1.0555	0.2519	0.0505	1.0500	0.9519	1.5324
1999	0.2083	0.3229	3.116	0.0436	1.6516	0.4407	0.0176	1.0171	0.9827	2.8599
2000	0.1894	0.3271	2.967	0.0470	1.7368	0.5384	0.0137	1.0132	0.9865	3.3902
2001	0.0739	0.1472	1.355	0.2226	5.0807	0.4973	(0.0047)	0.9948	1.0047	3.8800
2002	0.0714	0.1331	0.465	0.3632	3.3637	1.0183	0.0771	3.3971	0.9773	5.4647
2003	0.1027	0.1776	0.627	0.0276	1.1687	0.6509	0.0803	2.9853	0.9731	3.6347
2004	0.1244	0.2094	0.698	(0.1105)	0.3804	0.5949	0.0913	3.0503	0.9701	3.0556
2005	0.1308	0.2149	0.672	(0.1331)	0.3164	0.5588	0.0980	3.1100	0.9685	2.3580
2006	0.1321	0.2080	0.565	(0.1474)	0.3693	0.7544	0.1510	3.1930	0.9527	1.4647
2007	0.1394	0.2113	0.578	(0.1307)	0.4581	0.8536	0.1726	3.3016	0.9477	1.1508
2008	0.1344	0.1924	0.510	(0.1535)	0.4174	0.7074	0.1892	3.6222	0.9478	0.6966
2009	0.1392	0.2035	0.647	(0.0900)	0.5813	0.9771	0.1467	3.9267	0.9626	1.3304

Data source: KEWT 5.11-4 for 19 Europe Area by sector, 1990-2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A12-1 Bolivia: Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + \text{PRI} = \text{bop}$, the rate of change population and unemployment

Cost of capit	$\text{HA}_{T=0}$	$\text{r}^* - \text{HA}_{T=0}$	$\text{v}^* - \text{r}^* / \text{G}^* - \text{vY}^*$	$\text{CC}^*_{\text{REAL}}$	$\text{CC}^*_{\text{REAL(G)}}$	$\text{CC}^*_{\text{REAL(PRI)}}$	$\text{CC}^*_{\text{NOMINAL}}$	$\text{CC}^*_{\text{NOMIG}}$	$\text{CC}^*_{\text{NOMIG(P)}}$
2. Bolivia	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990	0.0673	0.1536	1.1652	0.1318	(0.3440)	0.0060	0.1896	(2.7628)	0.2775
1991	0.2403	0.0056	1.2163	0.0046	(0.0307)	0.2467	0.2022	(0.3499)	0.2564
1992	0.2468	0.0048	1.2640	0.0038	(0.0288)	0.1811	0.1991	(0.2442)	0.2717
1993	0.2416	0.0048	1.2609	0.0038	(0.0009)	0.2280	0.1955	(0.1762)	0.2900
1994	0.2437	0.0073	1.1596	0.0063	(0.0249)	0.2904	0.2164	(0.1309)	0.3246
1995	0.2526	0.0062	1.1937	0.0052	(0.0126)	0.1085	0.2168	(0.0614)	0.3224
1996	0.2567	0.0052	1.2366	0.0042	(0.0118)	0.0899	0.2119	(0.0604)	0.3282
1997	0.2354	0.0032	1.4518	0.0022	(0.0198)	0.1068	0.1643	(0.1276)	0.2977
1998	0.2093	0.0023	1.7832	0.0013	(0.0147)	0.0668	0.1186	(0.0912)	0.2120
1999	0.1927	0.0036	1.3906	0.0026	(0.0143)	0.0896	0.1412	(0.0883)	0.2780
2000	0.1844	0.0038	1.3605	0.0028	(0.0175)	0.1100	0.1383	(0.0988)	0.3014
2001	0.0716	0.1144	1.2175	0.0939	(0.0666)	0.4496	0.1528	(0.2023)	0.4610
2002	0.1729	0.0036	1.3811	0.0026	(0.0413)	0.1616	0.1278	(0.2208)	0.4350
2003	0.1708	0.0115	1.0951	0.0105	(0.1380)	0.4338	0.1665	(0.1993)	0.5054
2004	(0.0051)	0.2112	0.9255	0.2282	0.5978	0.3106	0.2228	(0.2121)	0.6281
2005	0.0714	0.1502	1.1437	0.1313	(0.0722)	0.1996	0.1937	(0.0919)	0.4740
2006	0.0805	0.1946	1.1052	0.1761	0.1091	0.1691	0.2489	0.1462	0.3518
2007	0.2817	0.0084	1.1351	0.0074	0.0449	0.1471	0.2556	0.1159	0.3597
2008	0.2227	0.0845	1.2681	0.0666	0.0524	0.0806	0.2423	0.1590	0.3125
2009	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Speed and,	$1/\lambda_{\text{C}}$	$1/\lambda_{\text{C}}^*$	$1/\lambda_{\text{P}}^*$	I_{actual}	$\text{I}_{\text{endoge.}}$	difference	Δd	$\text{SPRI} - \text{Ibri}$	bop
2. Bolivia	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL
1990	67.30	4.55	91.16	0.0977	0.0282	0.0695	(0.0576)	0.0448	(0.0128)
1991	18.04	3.30	49.75	0.1127	0.0620	0.0506	(0.0523)	(0.0087)	(0.0610)
1992	15.10	3.07	77.99	0.1269	0.0745	0.0524	(0.0505)	(0.0497)	(0.1002)
1993	15.15	3.53	57.54	0.1296	0.0730	0.0567	(0.0527)	(0.0507)	(0.1034)
1994	22.68	20.13	52.66	0.1155	0.0485	0.0670	(0.0363)	(0.0252)	(0.0615)
1995	19.58	26.09	13.69	0.1208	0.0583	0.0625	(0.0240)	(0.0275)	(0.0515)
1996	16.72	19.48	16.22	0.1258	0.0693	0.0565	(0.0257)	(0.0264)	(0.0522)
1997	10.66	10.64	5.10	0.1475	0.1070	0.0405	(0.0476)	(0.0441)	(0.0916)
1998	7.22	11.09	3.25	0.1821	0.1416	0.0405	(0.0460)	(0.0988)	(0.1448)
1999	8.42	11.54	5.94	0.1502	0.0873	0.0629	(0.0459)	(0.0710)	(0.1169)
2000	7.35	11.44	2.97	0.1407	0.0803	0.0604	(0.0501)	(0.0515)	(0.1017)
2001	68.99	12.06	86.57	0.1095	0.0367	0.0728	(0.0818)	0.0224	(0.0594)
2002	4.50	6.66	4.17	0.1204	0.0802	0.0402	(0.1033)	0.0364	(0.0668)
2003	9.00	24.62	69.29	0.0996	0.0251	0.0745	(0.0789)	0.0703	(0.0086)
2004	(68.41)	9.89	10.82	0.0930	(0.0111)	0.1041	(0.0677)	0.1224	0.0547
2005	80.36	43.00	13.31	0.1033	0.0256	0.0777	(0.0301)	0.0693	0.0393
2006	87.86	66.42	16.81	0.1137	0.0212	0.0925	0.0391	0.0633	0.1023
2007	23.13	49.85	11.65	0.1269	0.0470	0.0799	0.0254	0.0592	0.0846
2008	3.82	53.78	10.13	0.1357	0.0736	0.0620	0.0326	0.0455	0.0780
2009	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Unemployment	n	$\text{I}_{\text{EQUIG}} - \text{n}$	$\text{I}_{\text{EQUIPRI}} - \text{n}$	$\text{I}_{\text{EQUIG}} - \text{n}$	$\text{I}_{\text{EQUICG}} - \text{n}$	$\text{I}_{\text{EQUIPRI}} - \text{n}$	Unem. rate (act)	$\text{I}_{\text{EQUIG}} - \text{n}$	Infla. rate
2. Bolivia	under attaining equilibrium			under the same wage rate by sector			actual, to population		
1990	0.0218	0.0000	(0.0217)	0.0000	0.0000	0.0000	(0.0329)	0.1728	0.0767
1991	0.0244	0.0000	0.0000	(0.0234)	(0.0290)	0.0052	(0.0266)	0.2140	0.2095
1992	0.0253	0.0000	0.0000	(0.0243)	(0.0712)	0.0132	(0.0227)	0.1199	0.1865
1993	0.0246	(0.0236)	0.0000	(0.0236)	(0.0643)	0.0082	(0.0270)	0.0852	0.1798
1994	0.0240	0.0000	0.0000	(0.0230)	(0.0125)	0.0026	(0.0140)	0.0797	0.1573
1995	0.0235	0.0000	(0.0135)	(0.0225)	0.0018	(0.0139)	(0.0162)	0.1013	0.1624
1996	0.0243	0.0000	(0.0143)	(0.0233)	0.0190	(0.0183)	(0.0171)	0.1240	0.1712
1997	0.0237	0.0000	0.0000	(0.0227)	(0.0443)	0.0092	(0.0167)	0.0472	0.1616
1998	0.0270	0.0000	0.0000	(0.0260)	(0.0366)	0.0080	(0.0225)	0.0773	0.1543
1999	0.0213	0.0000	(0.0113)	(0.0203)	(0.0454)	(0.0009)	(0.0324)	0.0224	0.1567
2000	0.0209	0.0000	(0.0109)	(0.0199)	0.0192	(0.0155)	(0.0338)	0.0451	0.1530
2001	0.0204	0.0000	(0.0054)	0.0000	(0.0834)	0.0143	(0.0383)	0.0163	0.0302
2002	0.0200	0.0000	(0.0100)	(0.0190)	0.0107	(0.0128)	(0.0392)	0.0092	0.1175
2003	0.0208	0.0000	0.0000	(0.0198)	0.0589	0.0152	(0.0437)	0.0341	0.0915
2004	0.0192	0.0000	(0.0221)	(0.0362)	0.0047	(0.0234)		0.0440	(0.1112)
2005	0.0189	0.0000	(0.0089)	0.0000	0.0159	(0.0132)		0.0204	(0.0369)
2006	0.0185	0.0000	(0.0085)	0.0000	0.0904	(0.0328)		0.0430	(0.0781)
2007	0.0182	0.0000	0.0000	(0.0172)	0.0292	(0.0070)		0.0872	0.0967
2008	0.0179	0.0000	0.0000	0.0000	0.0481	(0.0111)		0.1393	0.0301
2009	0.0175	0.0000	0.0000	0.0000	#DIV/0!	#DIV/0!		0.0341	#DIV/0!

Data source: KEWT 5.11-4 for 19 Rest Area by sector, 1990-2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A12–2 Bolivia: Robustness, endogenous parameters and variables, and neutrality of the financial/market assets to the real assets, using M2, ten year debt yield, and the exchange rate

Robustness	$HA_{\beta}^{+}(\cdot)$	$HA_{\beta}^{+}(\cdot)$	$HA_{\beta}^{+}(\cdot)$	$HA_{\beta}^{+}(\cdot)$	$HA_{\beta}^{+}(\cdot)$	$HA_{\beta}^{+}(\cdot)$	$Width_{\Omega}(\cdot)$	$Width_{\Omega}(\cdot)$	$Width_{\Omega}(\cdot)$	$Width_{HA_{\Omega}(\cdot)}$
2. Bolivia	G	G	PRI	G	G	PRI	G	G	PRI	G
1990	0.4342	0.0971	0.4644	2.1137	0.1653	0.7119	0.3687	0.0737	0.0104	0.174
1991	0.4047	0.3114	0.4256	0.5956	0.5007	15.9534	0.0294	0.1356	2.5521	0.049
1992	0.4048	0.4150	0.4097	0.5915	0.8014	1.6790	0.0292	0.1908	0.3247	0.049
1993	0.4111	0.4912	0.3965	0.6071	0.9601	2.4879	0.0298	0.0433	0.4496	0.049
1994	0.4023	0.5243	0.3750	0.5925	1.3367	4.6150	0.0293	0.2730	0.7759	0.049
1995	0.3917	0.5391	0.3515	0.5650	1.3543	0.6804	0.0283	0.2690	0.1015	0.050
1996	0.3878	0.5622	0.3371	0.5540	1.4412	0.5858	0.0280	0.2865	0.0913	0.050
1997	0.4104	0.5936	0.3537	0.6045	1.6311	0.6982	0.0297	0.3156	0.1584	0.049
1998	0.4421	0.6296	0.3787	0.6854	1.7516	0.7361	0.0325	0.3519	0.1764	0.047
1999	0.4669	0.6606	0.3871	0.7604	2.0999	0.7732	0.0350	0.3666	0.1113	0.046
2000	0.4751	0.6866	0.3814	0.7884	2.5063	0.8006	0.0360	0.4245	0.1141	0.046
2001	0.4831	0.6804	0.3827	2.0319	4.3940	19.1965	0.3451	0.7203	2.3974	0.170
2002	0.4849	0.6992	0.3758	0.8234	3.7832	0.7436	0.0372	0.6220	0.1063	0.045
2003	0.4766	0.6807	0.3735	0.8327	10.5064	3.1482	0.0375	1.6203	0.5049	0.045
2004	0.4417	0.6533	0.3408	(28.1248)	0.8130	0.7753	3.6097	0.1961	0.0587	(0.128)
2005	0.4361	0.6404	0.3324	2.0173	9.2547	0.6836	0.3298	1.3455	0.1005	0.163
2006	0.4061	0.6312	0.3025	1.9364	5.1456	0.7128	0.3149	0.7503	0.1057	0.163
2007	0.3937	0.6245	0.3002	0.5623	2.1048	0.6091	0.0281	0.3320	0.1267	0.050
2008	0.3970	0.6193	0.3092	0.7443	1.7788	0.5075	0.1442	0.2824	0.1106	0.194
2009	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Endogenous	α	δ_0	β	Ω	$\beta_A = (1-\beta)$	$\chi = r'/g_Y$	$r' = \alpha/\Omega$	$r'_G = \alpha_G/\Omega_G$	$r'_{PRI} = \alpha_{PRI}/\Omega_{PRI}$	δ_0/α
2. Bolivia							G		PRI	
1990	0.1423	1.4763	0.7158	0.6441	0.0080	7.0540	0.2209	(2.5879)	0.2822	10.375
1991	0.1431	(0.4922)	0.4103	0.5819	0.0366	5.6242	0.2459	(0.0702)	0.2817	(3.439)
1992	0.1460	(0.4860)	0.4094	0.5802	0.0440	4.7877	0.2516	(0.0302)	0.3096	(3.329)
1993	0.1467	(0.5286)	0.4159	0.5952	0.0426	4.8334	0.2464	0.0101	0.3213	(3.604)
1994	0.1444	(0.5083)	0.4094	0.5753	0.0287	7.2657	0.2510	(0.0047)	0.3514	(3.521)
1995	0.1427	(0.4304)	0.3975	0.5515	0.0351	6.1617	0.2588	0.0534	0.3521	(3.016)
1996	0.1422	(0.4002)	0.3926	0.5429	0.0421	5.2269	0.2620	0.0642	0.3648	(2.814)
1997	0.1423	(0.4818)	0.4137	0.5964	0.0628	3.2136	0.2386	0.0250	0.3638	(3.386)
1998	0.1434	(0.7510)	0.4448	0.6781	0.0786	2.2768	0.2115	0.0765	0.2979	(5.236)
1999	0.1466	(1.5534)	0.4714	0.7466	0.0462	3.5600	0.1963	0.0433	0.3091	(10.509)
2000	0.1454	(2.2416)	0.4801	0.7726	0.0417	3.7739	0.1882	0.0189	0.3288	(15.416)
2001	0.1456	1.2765	0.7082	0.7826	0.0107	5.5975	0.1860	(0.1402)	0.4764	8.769
2002	0.1424	(4.4142)	0.4901	0.8065	0.0409	3.6242	0.1765	(0.1137)	0.4619	(31.005)
2003	0.1423	(7.6715)	0.4928	0.7801	0.0127	11.5103	0.1823	(0.1693)	0.5296	(53.930)
2004	0.1424	1.1067	1.0320	0.6904	0.0004	(12.4265)	0.2062	(0.2189)	0.6223	7.774
2005	0.1439	1.4924	0.7060	0.6497	0.0075	7.9605	0.2216	(0.0679)	0.4977	10.368
2006	0.1559	1.6694	0.7003	0.5666	0.0063	10.5072	0.2751	0.1710	0.3726	10.711
2007	0.1584	(0.5044)	0.4008	0.5460	0.0282	8.4044	0.2901	0.1629	0.4041	(3.184)
2008	0.1658	(5.4053)	0.4759	0.5397	0.0386	4.7304	0.3072	0.2131	0.3817	(32.605)
2009	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Neutrality c	$m_K = M/K$	$m_M = M/Y$	$m_H = M/H$	$r_{DEBT} = r^*$	$r_{DEBT} = r^*$	$r_{DEBT} = r^*$	$r^* = r^*(US)$	$e^*(US)$	$e_{US}/e^*(US)$	$e_{US}/e^*(US)$
2. Bolivia										
1990	0.1517	0.0977	0.6867	0.0094	1.0425	2.1856	0.1471	3.5471	0.9585	0.0300
1991	0.1952	0.1136	0.7938	(0.0308)	0.8748	0.4056	0.1786	3.9236	0.9545	0.0207
1992	0.2302	0.1336	0.9148	(0.0603)	0.7603	0.3143	0.1782	4.2732	0.9583	0.0200
1993	0.2705	0.1610	1.0976	(0.0618)	0.7490	0.9231	0.1799	4.6549	0.9613	0.0304
1994	0.3169	0.1823	1.2625	(0.0864)	0.6558	2.1102	0.1862	4.8812	0.9619	0.0367
1995	0.3413	0.1882	1.3188	(0.0902)	0.6516	1.4103	0.2002	5.1352	0.9610	0.0298
1996	0.4377	0.2376	1.6708	(0.0856)	0.6733	1.5364	0.2057	5.3907	0.9618	0.0313
1997	0.4547	0.2712	1.9057	(0.0738)	0.6908	1.3218	0.1864	5.5514	0.9664	0.0336
1998	0.4082	0.2768	1.9296	(0.0549)	0.7403	1.4171	0.1613	5.8063	0.9722	0.0425
1999	0.3504	0.2616	1.7849	(0.0360)	0.8166	3.2720	0.1471	6.1371	0.9760	0.0627
2000	0.3551	0.2743	1.8865	(0.0314)	0.8331	4.3079	0.1381	6.5281	0.9789	0.0767
2001	0.4102	0.3210	2.2050	(0.0414)	0.7774	13.0756	0.1268	6.9468	0.9818	0.0472
2002	0.3711	0.2993	2.1024	(0.0554)	0.6860	2.6308	0.1000	7.5900	0.9868	0.0898
2003	0.4239	0.3307	2.3247	(0.0793)	0.5649	8.2189	0.0988	7.9288	0.9875	0.1013
2004	0.3848	0.2657	1.8664	(0.1062)	0.4850	348.5510	0.1192	8.1692	0.9854	0.1286
2005	0.4459	0.2897	2.0126	(0.1083)	0.5114	15.3545	0.1249	8.1649	0.9847	0.0598
2006	0.5517	0.3126	2.0055	(0.1586)	0.4235	26.5036	0.1924	8.1724	0.9765	0.0630
2007	0.7112	0.3884	2.4514	(0.1850)	0.3622	6.6572	0.2215	7.8415	0.9718	0.0511
2008	0.7651	0.4129	2.4905	(0.1926)	0.3731	3.4998	0.2329	7.2529	0.9679	0.0721
2009	0.9028	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Data source: KEWT 5.11–4 for 19 Rest Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A13–1 Chile: Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + \text{PRI} = \text{bop}$, the rate of change population and unemployment

Cost of caplt	$\text{HA}_T(\pi)$	$\text{r}^* - \text{HA}_T(\pi)$	$\text{v}^* - \text{r}^* / \text{G}^* - \text{vY}^*$	$\text{CC}^*_{\text{REAL}}$	$\text{CC}^*_{\text{REAL(G)}}$	$\text{CC}^*_{\text{REAL(PRI)}}$	$\text{CC}^*_{\text{NOMINAL}}$	$\text{CC}^*_{\text{NOM(IG)}}$	$\text{CC}^*_{\text{NOM(P)}}$
4. Chile	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990	(39.0727)	39.4034	0.9937	39.6534	(0.4720)	(0.0089)	0.3328	0.8770	0.1008
1991	0.2874	(0.0199)	2.0053	(0.0099)	(0.1152)	(0.0061)	0.1334	0.3870	0.0906
1992	0.2982	(0.0372)	2.1634	(0.0172)	(0.2465)	(0.0051)	0.1207	0.3807	0.0648
1993	0.2033	0.0231	3.7940	0.0061	0.0192	0.0027	0.0597	0.2095	0.0255
1994	0.2658	0.0275	3.2920	0.0115	0.0137	0.0107	0.1226	0.1700	0.1110
1995	0.0489	0.0316	10.6603	0.0030	0.0825	(0.0094)	0.0075	0.1578	(0.0252)
1996	0.0650	0.0142	(7.7560)	(0.0018)	0.0402	(0.0075)	(0.0102)	0.1572	(0.0441)
1997	0.0640	0.0121	(5.3488)	(0.0023)	0.0293	(0.0069)	(0.0142)	0.1443	(0.0449)
1998	0.0590	0.0118	(6.9274)	(0.0017)	0.0095	(0.0049)	(0.0102)	0.0737	(0.0276)
1999	0.0518	0.0211	2.4980	0.0084	(0.0010)	0.0158	0.0292	(0.0083)	0.0370
2000	0.0543	0.0173	3.5893	0.0048	0.0068	0.0042	0.0199	0.0333	0.0166
2001	0.0543	0.0170	3.6370	0.0047	0.0089	0.0037	0.0196	0.0371	0.0155
2002	0.0543	0.0173	3.0081	0.0057	0.0019	0.0069	0.0238	0.0099	0.0270
2003	0.0563	0.0163	2.9660	0.0055	0.0060	0.0052	0.0245	0.0342	0.0218
2004	0.0513	0.0160	2.9841	0.0054	0.0438	(0.0011)	0.0226	0.1378	(0.0048)
2005	0.2021	0.0197	2.3084	0.0085	0.0639	0.0037	0.0961	0.3404	0.0456
2006	0.2201	0.0218	1.9181	0.0114	0.1424	0.0042	0.1261	0.5344	0.0523
2007	0.2154	0.0215	1.9227	0.0112	0.2656	0.0035	0.1232	0.6364	0.0433
2008	0.1205	0.0119	5.2031	0.0023	0.0846	(0.0022)	0.0254	0.4027	(0.0272)
2009	0.0810	0.0140	3.6283	0.0039	0.0001	0.0062	0.0262	0.0017	0.0317
Speed and,	$1/\lambda^*$	$1/\lambda_G^*$	$1/\lambda_{\text{PRI}}^*$	$\dot{\lambda}_{\text{actual}}$	$\dot{\lambda}_{\text{endog.}}$	difference	Δd	$\text{SPRI} - \text{PRI}$	bop
4. Chile	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL
1990	(5.74)	4.06	5.29	0.1407	0.2490	(0.1083)	0.0087	(0.0362)	(0.0275)
1991	3.52	3.48	4.90	0.1095	0.2196	(0.1101)	0.0167	(0.0296)	(0.0128)
1992	3.46	8.42	3.63	0.1367	0.2464	(0.1097)	0.0240	(0.0578)	(0.0338)
1993	130.37	69.81	308.52	0.1606	0.2783	(0.1176)	0.0206	(0.0857)	(0.0651)
1994	38.60	34.97	40.89	0.1416	0.2893	(0.1477)	0.0170	(0.0540)	(0.0370)
1995	30.04	41.58	28.10	0.1736	0.1233	0.0503	0.0296	(0.0511)	(0.0258)
1996	27.54	55.56	23.47	0.1579	0.1699	(0.0120)	0.0252	(0.0850)	(0.0519)
1997	24.40	52.30	20.84	0.1709	0.1782	(0.0073)	0.0214	(0.0844)	(0.0630)
1998	24.12	27.64	23.77	0.1580	0.1671	(0.0091)	0.0042	(0.0707)	(0.0665)
1999	43.45	17.49	60.86	0.0882	0.0889	(0.0007)	0.0069	(0.0062)	(0.0093)
2000	36.76	31.20	38.44	0.0934	0.1069	(0.0135)	0.0017	(0.0253)	(0.0236)
2001	36.42	36.73	36.48	0.1035	0.1079	(0.0044)	0.0041	(0.0295)	(0.0254)
2002	38.88	28.96	41.98	0.0967	0.1009	(0.0041)	(0.0046)	(0.0175)	(0.0221)
2003	38.79	30.44	41.65	0.0911	0.1017	(0.0105)	0.0022	(0.0259)	(0.0237)
2004	42.28	72.12	37.34	0.0916	0.0922	(0.0006)	0.0333	(0.0215)	0.0119
2005	26.52	120.64	19.82	0.1082	0.2435	(0.1353)	0.0697	(0.0733)	(0.0036)
2006	29.62	343.74	19.79	0.0956	0.2290	(0.1333)	0.1079	(0.0792)	0.0287
2007	28.87	309.48	18.96	0.1035	0.2330	(0.1294)	0.1206	(0.0909)	0.0297
2008	19.31	510.53	14.49	0.1086	0.2507	(0.1421)	0.0743	(0.1143)	(0.0400)
2009	26.14	15.70	33.53	0.1072	0.1698	(0.0627)	(0.0218)	0.0388	0.0170
Unemployme	n	REQUI(G)-n	REQUI(PRI)-n	REQUI-n	REQUI(G)-n	REQUI(PRI)-n	actual: to population	GCP(actual)	Infla. rate
4. Chile	under attaining equilibrium			under the same wage rate by sector					
1990	0.0108	(0.1908)	(0.0208)	0.0000	0.0000	0.0000	(0.0252)	0.2602	(38.9147)
1991	0.0168	(0.0768)	(0.0248)	(0.0268)	(0.0248)	(0.0333)	(0.0239)	0.2180	0.3057
1992	0.0165	(0.1365)	(0.0265)	(0.0365)	(0.1210)	(0.0289)	(0.0198)	0.1538	0.2769
1993	0.0170	0.0000	0.0000	0.0000	(0.0236)	0.0035	(0.0203)	0.1279	0.2204
1994	0.0160	0.0000	0.0000	0.0000	(0.0969)	0.0150	(0.0356)	0.1146	0.1759
1995	0.0286	0.0000	0.0000	0.0000	0.0176	(0.0030)	(0.0212)	0.0823	0.0680
1996	0.0160	0.0000	0.0000	0.0000	(0.0053)	0.0009	(0.0243)	0.0733	0.0785
1997	0.0144	0.0000	0.0000	0.0000	(0.0073)	0.0012	(0.0239)	0.0623	0.0828
1998	0.0135	0.0000	0.0000	0.0000	(0.0238)	0.0041	(0.0324)	0.0507	0.0755
1999	0.0126	0.0000	0.0000	0.0000	(0.1103)	0.0193	(0.0401)	0.0333	0.0527
2000	0.0125	0.0000	0.0000	0.0000	(0.0052)	0.0010	(0.0374)	0.0384	0.0603
2001	0.0123	0.0000	0.0000	0.0000	(0.0111)	0.0022	(0.0356)	0.0360	0.0380
2002	0.0115	0.0000	0.0000	0.0000	(0.0323)	0.0065	(0.0351)	0.0241	0.0210
2003	0.0108	0.0000	0.0000	0.0000	0.0482	(0.0101)	(0.0333)	0.0283	0.0174
2004	0.0107	0.0000	0.0000	0.0000	0.0366	(0.0073)	(0.0396)	0.0110	0.0135
2005	0.0112	0.0000	0.0000	0.0000	(0.0692)	0.0131	(0.0360)	0.0309	0.0247
2006	0.0104	0.0000	0.0000	0.0000	(0.0630)	0.0129	(0.0347)	0.0340	0.0359
2007	0.0103	0.0000	0.0000	0.0000	(0.0401)	0.0088	(0.0320)	0.0435	0.0370
2008	0.0096	0.0000	0.0000	0.0000	0.1041	(0.0241)	(0.0351)	0.0880	0.0378
2009	0.0101	0.0000	0.0000	0.0000	(0.0588)	0.0119	(0.0441)	0.0145	0.0190

Data source: KEWT 5.11–4 for 19 Rest Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A13–2 Chile: Robustness, endogenous parameters and variables, and neutrality of the financial/market assets to the real assets, using M2, ten year debt yield, and the exchange rate

Robustness	$HA_{\beta}^{+}(\cdot)$	$HA_{\beta}^{+}(\cdot)_{CG}$	$HA_{\beta}^{+}(\cdot)_{PRI}$	$HA_{\Omega}^{+}(\cdot)$	$HA_{\Omega}^{+}(\cdot)_{CG}$	$HA_{\Omega}^{+}(\cdot)_{PRI}$	$Wid\Omega_{CG}$	$Wid\Omega_{CG}(\cdot)_{CG}$	$Wid\Omega_{CG}(\cdot)_{PRI}$	$WidHA_{\Omega}(\cdot)$
4. Chile										
1990	0.4199	0.3989	0.4951	(0.0062)	0.2657	0.7508	0.0394	0.2053	0.1091	(6.368)
1991	0.4933	0.5151	0.4880	0.7245	0.5230	0.7494	0.1051	0.1909	0.0976	0.145
1992	0.5159	0.5739	0.5026	0.7414	0.4978	0.7913	0.1509	0.2571	0.1138	0.204
1993	0.5625	0.6378	0.5479	1.0943	1.1331	1.0861	0.1859	0.1818	0.1867	0.170
1994	0.6189	0.6758	0.6070	1.2006	1.2723	1.1858	0.1894	0.1931	0.1887	0.158
1995	0.5672	0.6220	0.5564	1.9013	2.5000	1.8326	0.3890	0.4802	0.3794	0.205
1996	0.5664	0.6057	0.5589	1.4208	1.5252	1.4124	0.2292	0.2349	0.2298	0.161
1997	0.5771	0.6040	0.5722	1.4514	1.4259	1.4620	0.2211	0.2109	0.2239	0.152
1998	0.5952	0.6251	0.5895	1.5784	1.4603	1.6086	0.2294	0.2092	0.2343	0.145
1999	0.6133	0.6441	0.6065	1.9782	1.7178	2.4150	0.2676	0.2356	0.3180	0.135
2000	0.6112	0.6439	0.6039	1.8430	1.9175	1.8322	0.2507	0.2571	0.2499	0.136
2001	0.6134	0.6427	0.6069	1.8512	2.0207	1.8153	0.2501	0.2676	0.2463	0.135
2002	0.6186	0.6445	0.6127	1.8967	1.9775	1.8891	0.2468	0.2553	0.2461	0.130
2003	0.6165	0.6576	0.6072	1.8375	1.9514	1.8225	0.2322	0.2421	0.2311	0.126
2004	0.6052	0.6502	0.5954	1.8069	2.0494	1.7714	0.2282	0.2474	0.2259	0.126
2005	0.6474	0.6491	0.6471	1.4206	1.3002	1.4759	0.1836	0.1648	0.1911	0.129
2006	0.6760	0.6359	0.6837	1.5133	1.1834	1.6713	0.1852	0.1440	0.2038	0.122
2007	0.6930	0.6126	0.7071	1.6070	1.3203	1.8386	0.1934	0.1569	0.2195	0.120
2008	0.6786	0.6003	0.6909	1.7998	1.1297	2.0146	0.2111	0.1368	0.2346	0.117
2009	0.6819	0.6341	0.6907	2.0709	1.4300	2.3194	0.2463	0.1786	0.2721	0.119
Endogenous	α	δ_{Ω}	β^{+}	Ω	$\beta_{\Omega}^{+}=(1-\beta^{+})$	$\chi^{+}=\tau^{+}/\beta_{\Omega}^{+}$	$\tau^{+}=\alpha/\Omega$	$\tau^{+}_{CG}=\alpha_{CG}/\Omega$	$\tau^{+}_{PRI}=\alpha_{PRI}/\Omega$	δ_{Ω}/α
4. Chile						$\chi^{+}=\alpha/(1-\beta^{+})$				
1990	0.2419	0.9386	(0.0062)	0.7315	0.2506	#####	0.3307	1.2114	0.2137	3.880
1991	0.2082	(1.5322)	0.4753	0.2785	0.1152	1.9947	0.2674	0.5886	0.2096	(7.359)
1992	0.2211	(1.3876)	0.4826	0.8470	0.1275	1.8596	0.2610	0.5660	0.1923	(6.275)
1993	0.2225	1.0484	0.5887	0.9828	0.1145	1.3579	0.2264	0.3944	0.1887	4.713
1994	0.3191	0.8550	0.6418	1.0882	0.1037	1.7184	0.2932	0.3677	0.2760	2.680
1995	0.0930	0.8118	0.6832	1.1556	0.0391	1.1035	0.0804	0.2125	0.0513	8.733
1996	0.0924	0.6676	0.6140	1.1668	0.0656	0.8858	0.0792	0.2197	0.0504	7.226
1997	0.0929	0.5884	0.6188	1.2206	0.0679	0.8425	0.0761	0.2150	0.0491	6.335
1998	0.0932	0.5166	0.6382	1.3158	0.0604	0.8739	0.0708	0.1783	0.0489	5.544
1999	0.1024	0.5759	0.6906	1.4056	0.0275	1.6676	0.0728	0.0998	0.0666	5.625
2000	0.1000	0.5411	0.6746	1.3974	0.0348	1.3862	0.0716	0.0947	0.0661	5.411
2001	0.1005	0.5322	0.6757	1.4097	0.0350	1.3792	0.0713	0.0885	0.0673	5.294
2002	0.1029	0.5216	0.6814	1.4386	0.0321	1.4980	0.0716	0.0694	0.0721	5.067
2003	0.1034	0.5129	0.6744	1.4259	0.0331	1.5086	0.0725	0.0955	0.0669	4.958
2004	0.0926	0.5431	0.6681	1.3765	0.0306	1.5040	0.0673	0.1713	0.0424	5.863
2005	0.2871	0.6317	0.6683	1.2944	0.0808	1.7643	0.2218	0.4000	0.1850	2.200
2006	0.3331	0.6145	0.6963	1.3769	0.0695	2.0892	0.2419	0.5735	0.1828	1.845
2007	0.3461	0.5831	0.7129	1.4611	0.0669	2.0838	0.2369	0.6611	0.1726	1.685
2008	0.2169	0.4137	0.6988	1.6380	0.0755	1.2379	0.1324	0.4484	0.0894	1.907
2009	0.1677	0.3828	0.7154	1.7662	0.0483	1.3805	0.0950	0.1632	0.0835	2.282
Neutrality c	$m_K=M/K$	$m=M/Y$	$m_{\Omega}=M/\Omega$	$r_{DEBT}=r^{+}$	$r_{DEBT}^{+}=r^{+}$	$e(US)/gy^{+}$	$r^{+}=r^{+}(US)$	$e^{+}(US)$	$e(US)/e^{+}(US)$	$e(US)/y^{+}$
4. Chile						$gy^{+}=gy^{+}/gy^{+}(US)$	$e^{+}(US)=e(US)/(r^{+}-r^{+}(US))$		$y^{+}=y^{+}/y^{+}(US)$	
1990	0.5942	0.4347	1.7966	0.1580	1.4776	6.12	0.2570	337.12	0.9992	98.4511
1991	0.5464	0.4254	2.0430	0.0184	1.0687	11.91	0.2001	375.07	0.9995	8.3082
1992	0.4778	0.4047	1.8303	(0.0213)	0.9182	9.24	0.1877	382.52	0.9995	6.3244
1993	0.4226	0.4153	1.8669	0.0171	1.0758	30.16	0.1598	431.20	0.9996	0.0000
1994	0.3454	0.3759	1.1781	(0.0898)	0.6937	39.98	0.2284	404.32	0.9994	0.0562
1995	0.4012	0.4637	4.9878	0.0192	1.2382	110.63	0.0219	407.15	0.9999	3.8038
1996	0.4117	0.4803	5.1986	0.0135	1.1706	85.51	0.0230	424.99	0.9999	2.0769
1997	0.4372	0.5337	5.7455	0.0188	1.2471	105.87	0.0240	439.83	0.9999	2.4512
1998	0.4322	0.5687	6.1027	0.0165	1.2327	163.83	0.0206	473.79	1.0000	3.5849
1999	0.4577	0.6433	6.2844	0.0010	1.0133	511.03	0.0236	530.09	1.0000	6.0083
2000	0.4611	0.6443	6.4432	0.0060	1.0843	487.53	0.0214	572.70	1.0000	6.1233
2001	0.4157	0.5861	5.8300	(0.0163)	0.7713	405.74	0.0121	656.21	1.0000	6.4724
2002	0.4099	0.5897	5.7277	(0.0333)	0.5352	332.93	(0.0050)	712.38	1.0000	6.5883
2003	0.3793	0.5409	5.2288	(0.0388)	0.4645	252.69	(0.0110)	599.41	1.0000	5.1861
2004	0.4231	0.5824	6.2864	(0.0378)	0.4383	297.78	(0.0197)	559.81	1.0000	5.0765
2005	0.4167	0.5394	1.8787	(0.1774)	0.2002	76.26	0.1251	514.34	0.9998	0.8584
2006	0.4102	0.5648	1.6957	(0.1842)	0.2385	128.03	0.1592	534.59	0.9997	0.8613
2007	0.4189	0.6121	1.7684	(0.1784)	0.2470	141.80	0.1683	495.99	0.9997	0.8592
2008	0.4066	0.6660	3.0707	(0.0827)	0.3753	150.47	0.0581	629.17	0.9999	2.9587
2009	0.3818	0.6744	4.0206	(0.0620)	0.3475	156.23	0.0266	506.46	0.9999	2.8770

Data source: KEWT 5.11–4 for 19 Rest Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A14–1 Columbia: Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + \text{PRI} = \text{bop}$, the rate of change population and unemployment

Cost of capit	$\text{HA}_{T^*}(\text{I})$	$r^* - \text{HA}_{T^*}(\text{I})$	$v^* = r^* / (r^* - \text{bY})$	$\text{CC}^*_{\text{REAL}}$	$\text{CC}^*_{\text{REAL}(\text{G})}$	$\text{CC}^*_{\text{REAL}(\text{PRI})}$	$\text{CC}^*_{\text{NOMINAL}}$	$\text{CC}^*_{\text{NOM}(\text{G})}$	$\text{CC}^*_{\text{NOM}(\text{P})}$
5. Colomb	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990	0.4320	0.0623	1.3381	0.0466	(0.4618)	0.0453	0.3701	5.1286	0.2679
1991	0.3413	0.0812	1.2147	0.0668	(0.0824)	0.0968	0.3478	0.6737	0.2686
1992	0.2669	0.0410	1.4499	0.0283	(0.0160)	0.0998	0.2124	0.0995	0.2105
1993	0.2304	0.0319	1.6495	0.0194	(0.0406)	0.0254	0.1590	0.1447	0.1437
1994	0.2447	0.0148	3.4283	0.0043	(0.0103)	0.0058	0.0757	0.0347	0.1099
1995	0.1704	0.0091	(7.0414)	(0.0013)	(0.0081)	(0.0019)	(0.0255)	0.0442	(0.0383)
1996	0.2026	(0.0077)	4.5843	(0.0017)	(0.4677)	(0.0051)	0.0425	(0.0079)	0.0838
1997	(1.7769)	1.9156	0.8887	2.1556	0.0384	(0.0171)	0.1561	(0.1337)	0.0551
1998	0.1020	0.0114	(8.9644)	(0.0013)	0.1314	0.0015	(0.0126)	0.0024	0.0151
1999	0.0738	0.0181	8.9791	0.0020	(3.3716)	0.0124	0.0102	(0.0974)	0.0603
2000	0.0842	0.0202	6.1425	0.0033	(0.0485)	0.0050	0.0170	(0.1447)	0.0368
2001	0.0666	0.0156	(15.5993)	(0.0010)	(14.9142)	0.0072	(0.0053)	(0.2068)	0.0392
2002	0.0673	0.0142	(6.6579)	(0.0021)	(0.0345)	0.0037	(0.0122)	(0.2071)	0.0211
2003	0.0825	0.0151	(19.9439)	(0.0008)	(0.0238)	0.0035	(0.0049)	(0.1579)	0.0222
2004	0.0898	0.0214	3.8224	0.0056	(0.0163)	0.0119	0.0291	(0.1134)	0.0574
2005	0.0988	0.0216	3.4631	0.0062	(0.0154)	0.0132	0.0348	(0.1165)	0.0674
2006	0.1273	0.0232	2.9066	0.0079	0.0143	0.0516	0.0044	0.0643	0.0643
2007	0.1223	0.0222	3.1221	0.0071	0.0007	0.0117	0.0463	0.0089	0.0564
2008	0.1305	0.0227	2.8112	0.0081	0.0003	0.0138	0.0545	0.0034	0.0712
2009	0.1093	0.0208	3.2676	0.0064	(0.0014)	0.0119	0.0398	(0.0132)	0.0599
Speed and.	$1/\lambda^*$	$1/\lambda_G^*$	$1/\lambda_{\text{PRI}}^*$	k_{actual}	$k_{\text{endoge.}}$	difference	Δd	$\text{SPRI} - \text{leRI}$	bop
5. Colomb	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL
1990	7.56	3.61	9.53	0.1340	0.1256	0.0084	(0.0090)	0.0421	0.0331
1991	11.87	4.53	19.31	0.1176	0.0727	0.0449	0.0011	0.0750	0.0761
1992	9.44	2.51	27.08	0.1226	0.1033	0.0192	(0.0362)	0.0541	0.0178
1993	8.52	5.26	12.66	0.1514	0.1181	0.0333	(0.0083)	(0.0114)	(0.0197)
1994	4.76	22.30	4.62	0.1777	0.2349	(0.0572)	(0.0160)	(0.0650)	(0.0810)
1995	3.39	7.46	3.73	0.1566	0.3007	(0.1441)	(0.0222)	(0.0563)	(0.0785)
1996	3.41	(5.95)	3.30	0.1538	0.2561	(0.1024)	(0.0369)	(0.0393)	(0.0762)
1997	(4.98)	135.81	35.94	0.1448	0.2405	(0.0957)	(0.0366)	(0.0439)	(0.0804)
1998	69.85	(5.10)	52.22	0.1354	0.2261	(0.0908)	(0.0487)	(0.0270)	(0.0757)
1999	37.54	(5.91)	42.39	0.0960	0.1474	(0.0514)	(0.0586)	0.0456	(0.0131)
2000	34.28	4.67	25.89	0.1284	0.1585	(0.0301)	(0.0069)	0.0006	(0.0063)
2001	26.73	(7.80)	27.86	0.1381	0.1679	(0.0299)	(0.0597)	0.0231	(0.0366)
2002	22.23	17.10	23.95	0.1421	0.1893	(0.0471)	(0.0546)	0.0062	(0.0485)
2003	20.03	14.19	21.55	0.1581	0.2142	(0.0561)	(0.0488)	0.0006	(0.0482)
2004	31.21	19.50	34.73	0.1449	0.1547	(0.0098)	(0.0383)	0.0491	0.0109
2005	29.04	13.76	33.99	0.1572	0.1649	(0.0077)	(0.0426)	0.0538	0.0012
2006	26.60	16.98	35.56	0.1766	0.1923	(0.0157)	(0.0313)	0.0380	0.0067
2007	25.08	15.04	33.19	0.1769	0.1967	(0.0198)	(0.0241)	0.0266	0.0025
2008	24.64	14.68	33.21	0.1799	0.2033	(0.0234)	(0.0231)	0.0294	0.0063
2009	23.69	14.70	31.18	0.1760	0.1995	(0.0234)	(0.0271)	0.0312	0.0042
Unemployment	n	$\text{DeQU}(\text{G}) - \text{n}$	$\text{DeQU}(\text{PRI}) - \text{n}$	$\text{DeQU}(\text{G}) - \text{n}$	$\text{DeQU}(\text{G}) - \text{n}$	$\text{DeQU}(\text{PRI}) - \text{n}$	Unem. rates (act)	$\Delta \text{CPI}(\text{actual})$	Infla. rate
5. Colomb	under attaining equilibrium			under the same wage rate by sector			actual: to population		
1990	0.0157	(0.0457)	0.0000	0.0000	0.0000	0.0000	(0.0459)	0.2902	0.3897
1991	0.0143	(0.0443)	0.0000	0.0000	(0.0331)	(0.0017)	(0.0441)	0.3040	0.3898
1992	0.0127	(0.0627)	0.0000	0.0000	(0.1667)	0.0154	(0.0414)	0.2681	0.3320
1993	0.0126	(0.0626)	0.0000	0.0000	(0.0674)	0.0008	(0.0351)	0.2279	0.3261
1994	0.0105	(0.0405)	0.0000	0.0000	(0.2536)	0.0355	(0.0342)	0.2380	0.3902
1995	0.0104	(0.0404)	0.0000	0.0000	0.0182	(0.0122)	(0.0392)	0.2092	0.4181
1996	0.0130	(0.1830)	(0.0230)	(0.0190)	(0.4728)	0.0334	(0.0536)	0.2029	0.4276
1997	0.0139	(0.0309)	(0.0539)	(0.2539)	(0.1077)	(0.0335)	(0.0545)	0.1857	(1.5734)
1998	0.0126	(0.2126)	0.0000	0.0000	(0.2168)	0.0012	(0.0675)	0.1868	0.4110
1999	0.0161	(0.1661)	0.0000	0.0000	(0.2574)	0.0267	(0.0905)	0.1090	0.2396
2000	0.0169	(0.0519)	0.0000	0.0000	(0.0312)	(0.0068)	(0.0923)	0.0917	0.1677
2001	0.0166	(0.1246)	0.0000	0.0000	(0.0890)	(0.0113)	(0.0662)	0.0800	0.1916
2002	0.0158	0.0000	0.0000	0.0000	0.0628	(0.0191)	(0.2565)	0.0630	0.1491
2003	0.0158	0.0000	0.0000	0.0000	0.0183	(0.0051)	(0.0639)	0.0714	0.1368
2004	0.0158	0.0000	0.0000	0.0000	0.0567	(0.0155)	(0.0612)	0.0593	0.1294
2005	0.0153	0.0000	0.0000	0.0000	(0.0155)	0.0039	(0.0531)	0.0504	0.1240
2006	0.0151	0.0000	0.0000	0.0000	(0.0227)	0.0059	(0.0545)	0.0430	0.1059
2007	0.0151	0.0000	0.0000	0.0000	0.0233	(0.0062)	(0.0500)	0.0556	0.1316
2008	0.0147	0.0000	0.0000	0.0000	(0.0113)	0.0029	(0.0509)	0.0699	0.1491
2009	0.0144	0.0000	0.0000	0.0000	(0.0385)	0.0101	(0.0540)	0.0416	0.1090

Data source: KEWT 5.11–4 for 19 Rest Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A14–2 Colombia: Robustness, endogenous parameters and variables, and neutrality of the financial/market assets to the real assets, using M2, ten year debt yield, and the exchange rate

Robustness	$HA_{\beta}^{+}(\cdot)$	$HA_{\beta}^{+}(\cdot)_{(G)}$	$HA_{\beta}^{+}(\cdot)_{(PRI)}$	$HA_{\Omega}^{+}(\cdot)$	$HA_{\Omega}^{+}(\cdot)_{(G)}$	$HA_{\Omega}^{+}(\cdot)_{(PRI)}$	Width $_{\Omega}(\cdot)$	Width $_{\Omega}(\cdot)_{(G)}$	Width $_{\Omega}(\cdot)_{(PRI)}$	Width $_{HA_{\Omega}(\cdot)}$
5. Colombia		G	PRI		G	PRI	G	G	PRI	
1990	0.2247	0.0529	0.2449	0.2859	0.0402	0.3446	0.0719	0.0315	0.0816	0.251
1991	0.2334	0.2969	0.2213	0.3297	0.2771	0.4032	0.0755	0.0918	0.0871	0.229
1992	0.2551	0.4812	0.1906	0.3533	0.6006	0.4192	0.0749	0.2015	0.0850	0.212
1993	0.2852	0.5357	0.2068	0.4066	0.6813	0.2965	0.0816	0.2213	0.0678	0.201
1994	0.3426	0.4536	0.3100	0.4823	0.5909	0.4126	0.0828	0.1639	0.0745	0.172
1995	0.4196	0.4998	0.3980	0.6678	0.7169	0.6192	0.1035	0.1835	0.0985	0.155
1996	0.4841	0.4319	0.4851	0.7672	(0.0159)	0.7259	0.0863	0.0569	0.1059	0.112
1997	0.4401	0.4433	0.5134	(0.0706)	0.6697	0.6980	0.1353	0.1412	0.2090	(1.916)
1998	0.5354	0.4268	0.5482	1.1201	(0.0171)	1.1430	0.1680	0.0650	0.1695	0.150
1999	0.5529	0.4487	0.5695	1.3638	(0.0316)	1.3896	0.2223	0.0776	0.2231	0.163
2000	0.5617	0.4102	0.5928	1.3805	1.3205	1.3467	0.2289	#N/UM!	0.2208	0.166
2001	0.5755	0.4159	0.6034	1.4836	(0.0135)	1.5372	0.2416	0.0440	0.2454	0.163
2002	0.5949	0.4942	0.6162	1.5653	1.2884	1.6249	0.2500	0.2241	0.2554	0.160
2003	0.6161	0.5292	0.6345	1.6186	1.3843	1.6686	0.2516	0.2307	0.2559	0.155
2004	0.5834	0.5287	0.5953	1.4805	1.2947	1.5325	0.2338	0.2162	0.2390	0.158
2005	0.5962	0.5568	0.6052	1.5071	1.4288	1.5371	0.2328	0.2296	0.2350	0.154
2006	0.6156	0.6265	0.6126	1.5059	1.3162	1.6597	0.2288	0.2016	0.2491	0.152
2007	0.6254	0.6735	0.6105	1.5702	1.6007	1.6247	0.2369	0.2364	0.2450	0.151
2008	0.6439	0.7100	0.6213	1.6436	1.8770	1.6206	0.2413	0.2662	0.2396	0.147
2009	0.6629	0.7323	0.6371	1.8432	2.2550	1.7576	0.2646	0.3122	0.2549	0.144
Endogenous	α	δ_{θ}	β^{+}	Ω	$\beta_{\Omega}^{+}=(1-\beta^{+})$	$\chi^{+}=\tau^{+}/\beta_{\Omega}^{+}$	$\tau^{+}=\alpha/\Omega$	$\tau^{+}_{G}=\alpha_{G}/\Omega_{G}$	$\tau^{+}_{PRI}=\alpha_{PRI}/\Omega_{PRI}$	δ_{θ}/α
5. Colombia					$\chi^{+}=\alpha/(1-\beta^{+})$	G	G	PRI		
1990	0.1238	(0.2555)	0.2489	0.2499	0.0944	3.9579	0.4952	5.4617	0.3611	(2.064)
1991	0.1125	(0.3555)	0.2737	0.2663	0.0528	5.6576	0.4224	0.9192	0.3083	(3.160)
1992	0.0943	(0.2743)	0.2832	0.3063	0.0741	3.2226	0.3079	0.4094	0.2373	(2.909)
1993	0.0937	(0.3049)	0.3124	0.3571	0.0812	2.5396	0.2623	0.3229	0.2147	(3.255)
1994	0.1180	(0.3283)	0.3559	0.4548	0.1513	1.4118	0.2595	0.1354	0.3094	(2.782)
1995	0.1138	(0.6717)	0.4323	0.6340	0.1707	0.8756	0.1795	0.2074	0.1710	(5.902)
1996	0.1554	(1.2177)	0.4745	0.7974	0.1346	1.2790	0.1949	(0.0107)	0.2473	(7.834)
1997	0.1255	0.9640	(0.0654)	0.9044	0.2562	(7.9816)	0.1387	(0.0745)	0.1844	7.684
1998	0.1142	0.9684	0.5615	1.0078	0.0992	0.8996	0.1133	(0.0012)	0.1393	8.478
1999	0.1006	0.7906	0.6064	1.0947	0.0580	1.1253	0.0919	(0.1017)	0.1384	7.860
2000	0.1162	0.7672	0.6136	1.1137	0.0612	1.1945	0.1043	(0.2493)	0.1609	6.604
2001	0.0988	0.6426	0.6260	1.2021	0.0628	0.9398	0.0822	(0.2083)	0.1292	6.504
2002	0.1053	0.5540	0.6400	1.2926	0.0681	0.8694	0.0815	(0.1091)	0.1139	5.260
2003	0.1336	0.5100	0.6549	1.3688	0.0739	0.9523	0.0976	(0.0530)	0.1242	3.818
2004	0.1329	0.6760	0.6343	1.1953	0.0566	1.3543	0.1112	(0.0035)	0.1334	5.087
2005	0.1490	0.6371	0.6426	1.2373	0.0589	1.4060	0.1204	(0.0002)	0.1460	4.277
2006	0.1916	0.6182	0.6541	1.2754	0.0665	1.5237	0.1503	0.2136	0.1324	3.226
2007	0.1920	0.5816	0.6636	1.3288	0.0662	1.4712	0.1445	0.1897	0.1291	3.029
2008	0.2146	0.5534	0.6798	1.3997	0.0651	1.5521	0.1533	0.1698	0.1468	2.579
2009	0.2014	0.4861	0.7007	1.5484	0.0597	1.4410	0.1301	0.1245	0.1325	2.413
Neutrality c	$m_K=M/K$	$m=Y$	$m_{\Omega}=M/\Omega$	$r_{DEBT}=r^{+}$	$r_{DEBT}=r^{+}$	$e(US)/gy^{+}(US)$	$e^{+}=r^{+}(US)$	$e^{+}(US)$	$e^{+}(US)$	$e^{+}(US)/y^{+}(US)$
5. Colombia					$gy^{+}=gy^{+}(US)$					
1990	0.0858	0.0214	0.1732	(0.0432)	0.9127	31.71	0.4215	569.15	0.9993	1.444
1991	0.7546	0.2010	1.7862	0.0486	1.1149	54.95	0.3551	707.22	0.9995	1.6089
1992	0.7278	0.2229	2.3638	0.0651	1.2115	39.24	0.2345	812.00	0.9997	1.3449
1993	0.6706	0.2395	2.5565	0.0957	1.3648	105.48	0.1958	917.53	0.9998	1.7944
1994	0.4530	0.2060	1.7456	0.1455	1.5605	72.98	0.1947	831.46	0.9998	1.2620
1995	0.5218	0.3309	2.9068	0.2477	2.3797	60.01	0.1210	987.77	0.9999	1.1868
1996	0.4258	0.3395	2.1842	0.2250	2.1539	91.72	0.1387	1005	0.9999	1.3235
1997	0.3932	0.3556	2.8346	0.2035	2.4668	79.61	0.0866	1294	0.9999	941.02
1998	0.3382	0.3408	2.9837	0.3091	3.7269	310.42	0.0631	1508	1.0000	18
1999	0.3234	0.3541	3.5199	0.1658	2.8045	858.20	0.0427	1874	1.0000	394.3
2000	0.2904	0.3234	2.7838	0.0836	1.8014	1038.97	0.0542	2187	1.0000	4731
2001	0.2771	0.3331	3.3719	0.1250	2.5211	793.96	0.0229	2301	1.0000	7526
2002	0.2529	0.3269	3.1034	0.0818	2.0042	629.79	0.0050	2865	1.0000	9901
2003	0.2378	0.3255	2.4369	0.0543	1.5565	507.29	0.0141	2781	1.0000	9007
2004	0.2465	0.2947	2.2178	0.0396	1.3565	663.29	0.0242	2412	1.0000	4963
2005	0.2515	0.3112	2.0891	0.0252	1.2094	554.31	0.0237	2284	1.0000	4629
2006	0.2508	0.3199	1.6691	(0.0214)	0.8578	675.63	0.0676	2226	1.0000	4031
2007	0.2515	0.3341	1.7403	0.0093	1.0644	710.35	0.0759	1988	1.0000	3886
2008	0.2510	0.3513	1.6374	0.0185	1.1208	611.54	0.0790	2198	1.0000	3871
2009	0.2314	0.3582	1.7785	(0.0003)	0.9978	490.00	0.0617	2044	1.0000	4557

Data source: KEWT 5.11–4 for 19 Rest Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A15–1 Paraguay: Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + \text{PRI} = \text{bop}$, the rate of change population and unemployment

Cost of capit	$\text{HA}_{\text{r}}(\text{r})$	$\text{r}^* - \text{HA}_{\text{r}}(\text{r})$	$\text{v}^* - \text{r}^* / \text{G}^* - \text{BY}$	$\text{CC}^*_{\text{REAL}}$	$\text{CC}^*_{\text{REAL}(\text{G})}$	$\text{CC}^*_{\text{REAL}(\text{PRI})}$	$\text{CC}^*_{\text{NOMINAL}}$	$\text{CC}^*_{\text{NOMIGO}}$	$\text{CC}^*_{\text{NOMIG(P)}}$
6. Paraguay	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990	15.8463	2.8585	1.0112	2.8268	#####	0.0169	18.4969	9.4195	(16.2446)
1991	0.7148	0.1095	1.3125	0.0834	(0.3168)	0.1301	0.6280	0.5224	0.6013
1992	0.3666	0.0738	1.6011	0.0461	0.0161	0.0568	0.2751	0.1768	0.2704
1993	0.2728	0.0596	1.8255	0.0327	0.0143	0.0301	0.1821	0.1519	0.1265
1994	0.2272	0.0559	2.0366	0.0274	0.0107	0.0278	0.1390	0.0985	0.1057
1995	0.2348	0.0002	2.0040	0.0001	0.0082	0.0171	0.1173	0.0727	0.0608
1996	0.1975	0.0018	2.3206	0.0008	0.0045	0.0119	0.0859	0.0455	0.0540
1997	0.1723	(0.0028)	2.1751	(0.0013)	0.0032	0.0183	0.0779	0.0271	0.0679
1998	0.1176	0.0313	2.7339	0.0115	0.0029	0.0012	0.0545	0.0116	0.1079
1999	0.0953	0.0386	2.2496	0.0172	(0.0113)	0.0027	0.0595	(0.0461)	0.1542
2000	0.0904	0.0434	1.9353	0.0224	(0.0169)	0.0044	0.0691	(0.0692)	0.1889
2001	0.0876	0.0405	2.0325	0.0199	(0.0023)	0.0024	0.0630	(0.0073)	0.1304
2002	0.0837	0.0465	1.7644	0.0264	(0.0110)	0.0884	0.0738	(0.0522)	0.1663
2003	0.0989	0.0453	1.7737	0.0255	0.0005	0.0039	0.0813	0.0023	0.1486
2004	0.1096	0.0413	1.8849	0.0219	0.0116	0.0021	0.0800	0.0587	0.0982
2005	0.1169	0.0320	2.4646	0.0130	0.0069	0.0012	0.0604	0.0379	0.0842
2006	0.1099	0.0335	2.5425	0.0132	0.0072	0.0011	0.0564	0.0350	0.0810
2007	0.1122	0.0344	2.1346	0.0161	0.0084	0.0015	0.0687	0.0489	0.0841
2008	0.1162	0.0339	2.1214	0.0160	0.0144	0.0011	0.0708	0.0812	0.0649
2009	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Speed and,	$1/\lambda$	$1/\lambda_{\text{PRI}}$	$1/\lambda_{\text{PRI}}$	I_{actual}	$\text{I}_{\text{endoge.}}$	difference	Δd	$\text{SPRI} - \text{PRI}$	bop
6. Paraguay	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL
1990	5.44	(20.12)	11.15	0.1657	0.1467	0.0189	0.0315	(0.0748)	(0.0433)
1991	5.07	2.88	8.04	0.1783	0.1768	0.0016	(0.0017)	(0.0699)	(0.0716)
1992	5.16	42.68	6.93	0.1648	0.1685	(0.0038)	0.0086	(0.1192)	(0.1106)
1993	4.77	28.89	7.43	0.1658	0.1676	(0.0018)	0.0124	(0.1262)	(0.1138)
1994	3.69	22.37	7.17	0.1694	0.1702	(0.0008)	0.0072	(0.2012)	(0.1940)
1995	6.83	20.89	7.13	0.1736	0.1724	0.0013	0.0049	(0.1715)	(0.1666)
1996	5.31	19.82	7.46	0.1684	0.1774	(0.0090)	0.0005	(0.1653)	(0.1647)
1997	2.07	19.86	6.55	0.1726	0.1575	0.0151	(0.0016)	(0.1631)	(0.1647)
1998	85.91	23.04	8.84	0.1458	0.1541	(0.0083)	(0.0026)	(0.0843)	(0.0868)
1999	42.51	16.88	11.40	0.1409	0.1234	0.0175	(0.0062)	(0.0714)	(0.1020)
2000	46.01	15.14	13.77	0.1323	0.1057	0.0267	(0.0423)	(0.0568)	(0.0991)
2001	42.28	24.87	9.96	0.1322	0.1098	0.0224	(0.0093)	(0.0890)	(0.0983)
2002	46.61	15.64	126.18	0.1313	0.0927	0.0385	(0.0355)	0.0059	(0.0296)
2003	57.03	20.91	19.77	0.1459	0.0997	0.0462	(0.0072)	(0.0140)	(0.0212)
2004	67.94	26.70	17.22	0.1436	0.1124	0.0312	0.0185	(0.0399)	(0.0214)
2005	61.84	23.07	11.07	0.1438	0.1465	(0.0027)	0.0076	(0.0579)	(0.0503)
2006	48.46	23.27	10.30	0.1419	0.1452	(0.0033)	0.0068	(0.0629)	(0.0560)
2007	63.23	24.04	13.97	0.1295	0.1281	0.0014	0.0121	(0.0542)	(0.0421)
2008	93.02	28.72	13.64	0.1313	0.1282	0.0031	0.0259	(0.0810)	(0.0551)
2009	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Unemployme	n	$\text{I}_{\text{actual}}(\text{G}) - \text{n}$	$\text{I}_{\text{actual}}(\text{PRI}) - \text{n}$	$\text{I}_{\text{actual}}(\text{G}) - \text{n}$	$\text{I}_{\text{actual}}(\text{PRI}) - \text{n}$	$\text{I}_{\text{actual}}(\text{G}) - \text{n}$	actual: to population	actual: to population	Infla. rate
6. Paraguay	under attaining equilibrium								
1990	0.0318	(0.5518)	(0.0319)	0.0000	0.0000	0.0000	(0.0297)	0.3802	(2.6985)
1991	0.0261	(0.2561)	0.0000	0.0000	(0.3214)	0.0056	(0.0230)	0.2431	
1992	0.0277	0.0000	0.0000	0.0000	0.0237	(0.0022)	(0.0239)	0.1527	0.0662
1993	0.0270	0.0000	0.0000	0.0000	(0.0283)	0.0025	(0.0230)	0.1809	0.0704
1994	0.0284	0.0000	0.0000	0.0000	(0.0158)	0.0014	(0.0198)	0.2066	0.0709
1995	0.0277	0.0000	0.0000	(0.0276)	(0.0632)	0.0059	0.0000	0.1338	0.1401
1996	0.0207	0.0000	0.0000	(0.0197)	(0.0599)	0.0060	(0.0369)	0.0980	0.1417
1997	0.0203	0.0000	0.0000	(0.0218)	(0.0739)	0.0078	0.0000	0.0701	0.1381
1998	0.0199	0.0000	(0.0189)	0.0000	(0.4761)	0.0356	0.0000	0.1149	0.0990
1999	0.0214	0.0000	(0.0204)	0.0000	(0.0063)	(0.0193)	(0.0423)	0.0667	0.0831
2000	0.0210	0.0000	(0.0200)	0.0000	(0.0556)	(0.0101)	(0.0464)	0.0905	0.0753
2001	0.0206	0.0000	(0.0196)	0.0000	0.0404	(0.0272)	0.0000	0.0724	0.0711
2002	0.0201	0.0000	0.0000	0.0000	0.0636	(0.0115)	(0.0662)	0.1055	0.0466
2003	0.0197	0.0000	(0.0187)	0.0000	0.0667	(0.0300)	(0.0504)	0.1412	0.0582
2004	0.0194	0.0000	(0.0184)	0.0000	0.0565	(0.0271)		0.0435	0.0395
2005	0.0190	0.0000	(0.0180)	0.0000	(0.0690)	(0.0080)		0.0204	0.0593
2006	0.0203	0.0000	(0.0193)	0.0000	(0.0323)	(0.0143)		0.0960	0.0578
2007	0.02183	0.0000	(0.0173)	0.0000	0.0742	(0.0293)		0.0812	0.0531
2008	0.0179	0.0000	(0.0169)	0.0000	0.0739	(0.0280)		0.1013	0.0689
2009	0.0176	0.0000	0.0000	0.0000	#DIV/0!	#DIV/0!		0.0261	#DIV/0!

Data source: KEWT 5.11–4 for 19 Rest Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A15–2 Paraguay: Robustness, endogenous parameters and variables, and neutrality of the financial/market assets to the real assets, using M2, ten year debt yield, and the exchange rate

Robustness	$HA_{\beta}^{+}(\cdot)$	$HA_{\beta}^{+}(\cdot)_{CG}$	$HA_{\beta}^{+}(\cdot)_{PRI}$	$HA_{\Omega}^{+}(\cdot)$	$HA_{\Omega}^{+}(\cdot)_{CG}$	$HA_{\Omega}^{+}(\cdot)_{PRI}$	Width $_{CG}$	Width $_{CG}(\cdot)_{CG}$	Width $_{CG}(\cdot)_{PRI}$	Width $HA_{\Omega}(\cdot)$	
6. Paraguay	0.0097	0.0731	(0.0037)	0.0095	(0.0005)	(0.0035)	0.0159	0.0139	0.0006	1.670	
1991	0.1811	0.5309	0.0941	0.2111	0.3935	0.1204	0.0756	0.2935	0.0568	0.358	
1992	0.2807	0.6958	0.1813	0.3908	1.1811	0.2511	0.1152	0.2324	0.0893	0.295	
1993	0.3400	0.7419	0.2303	0.5239	1.3887	0.3573	0.1385	0.2615	0.1105	0.264	
1994	0.3827	0.7733	0.2647	0.6415	1.6914	0.4418	0.1639	0.3204	0.1301	0.255	
1995	0.4148	0.7945	0.2940	0.6081	1.9343	0.5295	0.0094	0.3567	0.1454	0.016	
1996	0.4547	0.8110	0.3271	0.7209	2.2536	0.5713	0.0337	0.3567	0.1326	0.047	
1997	0.4973	0.8289	0.3639	0.8345	2.7883	0.7105	0.0460	0.4317	0.1527	0.055	
1998	0.5357	0.7785	0.4191	1.2259	3.4629	0.6383	0.2243	0.5381	0.0311	0.183	
1999	0.5581	0.7907	0.4438	1.4905	4.2425	0.6949	0.2729	0.6805	0.0328	0.183	
2000	0.5595	0.7836	0.4466	1.5790	4.4356	0.6954	0.2831	0.7065	0.0327	0.179	
2001	0.5696	0.7931	0.4600	1.6256	4.5247	0.7493	0.2871	0.7042	0.0348	0.177	
2002	0.5681	0.8075	0.4539	1.7170	4.4322	1.4907	0.2974	0.6857	0.2646	0.173	
2003	0.5467	0.8068	0.4223	1.4728	3.7262	0.6605	0.2592	0.5710	0.0319	0.176	
2004	0.5397	0.8115	0.4131	1.3495	3.1648	0.6516	0.2390	0.4797	0.0319	0.177	
2005	0.5449	0.8007	0.4258	1.2735	3.0935	0.6741	0.2259	0.4678	0.0325	0.177	
2006	0.5518	0.7959	0.4388	1.3422	3.1940	0.7084	0.2438	0.4997	0.0337	0.182	
2007	0.5446	0.8035	0.4291	1.3089	2.9784	0.6924	0.2266	0.4415	0.0333	0.173	
2008	0.5347	0.8070	0.4194	1.2475	2.8538	0.6731	0.2162	0.4182	0.0327	0.173	
2009	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Endogenous	α	δ_{θ}	β	Ω	$\beta_{\alpha}=(1-\beta)$	$\chi=\tau^2/\beta\gamma$	$\tau=\alpha/\Omega$	$\tau_{CG}=\alpha_{CG}/\Omega_{CG}$	$\tau_{PRI}=\alpha_{PRI}/\Omega_{PRI}$	δ_{θ}/α	
6. Paraguay	0.1505	(0.0807)	0.0114	0.0080	0.1451	89.9342	18.7049	9.4158	(16.1686)	(0.536)	
1991	0.1509	(0.2429)	0.2032	0.1831	0.1408	4.1999	0.8243	0.9017	0.7217	(1.610)	
1992	0.1433	(0.4823)	0.3192	0.3253	0.1148	2.6635	0.4405	0.4820	0.4023	(3.366)	
1993	0.1429	(0.8131)	0.3857	0.4299	0.1030	2.2113	0.3325	0.4378	0.2398	(5.688)	
1994	0.1457	(1.5696)	0.4358	0.5149	0.0960	1.9647	0.2831	0.3614	0.2139	(10.771)	
1995	0.1428	(0.4515)	0.4150	0.6075	0.1008	1.9960	0.2350	0.3171	0.1592	(3.162)	
1996	0.1424	(0.9467)	0.4569	0.7145	0.0963	1.7572	0.1993	0.2546	0.1476	(6.648)	
1997	0.1438	(5.0602)	0.4932	0.8482	0.0798	1.8510	0.1695	0.1967	0.1432	(35.190)	
1998	0.1442	1.0858	0.5937	0.9680	0.0626	1.5767	0.1490	0.0926	0.1968	7.530	
1999	0.1421	0.8969	0.6396	1.0609	0.0445	1.8002	0.1340	0.0416	0.2105	6.311	
2000	0.1427	0.8981	0.6528	1.0665	0.0367	2.0692	0.1338	0.0165	0.2319	6.293	
2001	0.1425	0.8391	0.6592	1.1120	0.0374	1.9685	0.1281	0.0575	0.1846	5.890	
2002	0.1438	0.8619	0.6717	1.1039	0.0304	2.3082	0.1302	0.0430	0.2042	5.995	
2003	0.1457	0.9816	0.6374	1.0104	0.0362	2.2924	0.1442	0.0959	0.1863	6.737	
2004	0.1478	1.0415	0.6175	0.9803	0.0430	2.1301	0.1508	0.1569	0.1455	7.045	
2005	0.1489	1.0000	0.6039	1.0000	0.0580	1.6828	0.1489	0.1419	0.1547	6.717	
2006	0.1475	0.9408	0.6163	1.0285	0.0557	1.6483	0.1434	0.1332	0.1516	6.378	
2007	0.1469	0.9955	0.6097	1.0020	0.0500	1.8814	0.1466	0.1559	0.1392	6.776	
2008	0.1449	1.0890	0.5976	0.9654	0.0516	1.8917	0.1501	0.1825	0.1249	7.514	
2009	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
Neutrality c	$m_K=M/K$	$m_M=M/Y$	$m_I=M/I$	$t_{DEBT}=\tau^{+}$	$t_{DEBT}=\tau^{+}$	$e(US)/\beta\gamma$	$\tau^{+}=\tau$	$e^{+}(US)$	$e^{+}(US)$	$e^{+}(US)/e^{+}(US)$	$e^{+}(US)/\tau^{+}$
6. Paraguay	27.6858	0.2227	1.4801	(18.5449)	0.0086	44.23	18.6311	1277	0.9854	12916	
1991	1.4258	0.2610	1.7298	(0.6743)	0.1820	38.46	0.7569	1381	0.9995	10629	
1992	0.9624	0.3131	2.1850	(0.3005)	0.3179	48.11	0.3671	1630	0.9998	12601	
1993	0.7572	0.3256	2.2775	(0.2025)	0.3910	161.19	0.2660	1880	0.9999	19841	
1994	0.6267	0.3227	2.2142	(0.1563)	0.4480	257.84	0.2183	1925	0.9999	24878	
1995	0.5435	0.3302	2.3130	(0.0947)	0.5970	196.99	0.1764	1980	0.9999	14048	
1996	0.4663	0.3331	2.3394	(0.0558)	0.7200	273.15	0.1431	2110	0.9999	18951	
1997	0.4088	0.3468	2.4115	(0.0342)	0.7981	456.30	0.1174	2360	1.0000	32887	
1998	0.3286	0.3180	2.2055	(0.0187)	0.8746	894.98	0.0987	2840	1.0000	122	
1999	0.3426	0.3635	2.5576	(0.0123)	0.9085	1897	0.0848	3329	1.0000	7950	
2000	0.3210	0.3423	2.3986	(0.0151)	0.8870	2713	0.0837	3527	1.0000	11303	
2001	0.3447	0.3833	2.6907	(0.0165)	0.8711	2581	0.0689	4682	1.0000	15831	
2002	0.3138	0.3464	2.4095	(0.0371)	0.7149	3344	0.0537	7104	1.0000	25457	
2003	0.3160	0.3193	2.1914	(0.0407)	0.7177	2249	0.0607	6115	1.0000	9204	
2004	0.3168	0.3105	2.1006	(0.0700)	0.5358	2222	0.0638	6250	1.0000	3525	
2005	0.2928	0.2928	1.9670	(0.0576)	0.6133	1508	0.0522	6120	1.0000	1535	
2006	0.2777	0.2856	1.9364	(0.0521)	0.6366	1984	0.0607	5190	1.0000	3848	
2007	0.3182	0.3188	2.1609	(0.0591)	0.5968	2434	0.0780	4875	1.0000	1927	
2008	0.3449	0.3330	2.2977	(0.0473)	0.6848	1890	0.0758	4945	1.0000	254	
2009	0.4208	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

Data source: KEWT 5.11–4 for 19 Rest Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A16–1 Peru: Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + \text{PRI} = \text{bop}$, the rate of change population and unemployment

Cost of capit	$\text{HA}_{T=0}$ max. endo. in	$r^* - \text{HA}_{T=0}$ REAL	$v^* - r^* / G^* - \text{b}v^*$ to bubbles	$\text{CC}^*_{\text{REAL}}$ REAL	$\text{CC}^*_{\text{REAL(G)}}$ G	$\text{CC}^*_{\text{REAL(PRI)}}$ PRI	$\text{CC}^*_{\text{NOMINAL}}$ NOMINAL	$\text{CC}^*_{\text{NOMIG}}$ G	$\text{CC}^*_{\text{NOMIG(P)}}$ PRI
7. Peru									
1990	0.1878	0.0404	2.1703	0.0186	(0.0230)	(0.1039)	0.1052	(0.1222)	(0.6289)
1991	0.5022	0.0979	1.2558	0.0779	(0.0061)	0.9493	0.4784	(0.0572)	4.7933
1992	0.3722	0.0706	1.4082	0.0501	(0.0178)	0.1830	0.3179	(0.1686)	1.0085
1993	0.3569	0.0412	1.4560	0.0283	(0.0125)	0.0666	0.2734	(0.1519)	0.6035
1994	0.2371	0.0368	1.8736	0.0196	0.0005	0.0148	0.1462	0.2586	0.1279
1995	0.1588	0.0411	4.3066	0.0095	(0.0123)	0.0212	0.0464	(0.1009)	0.0875
1996	0.1490	0.0236	3.0631	0.0077	(0.0023)	0.0117	0.0564	(0.0195)	0.0824
1997	0.1401	(0.0001)	4.2261	(0.0000)	0.0014	0.0042	0.0331	0.0074	0.0229
1998	0.1211	0.0005	4.7350	0.0001	(0.0356)	0.0059	0.0257	(0.0669)	0.0427
1999	0.1059	(0.0000)	3.3781	(0.0000)	(0.0505)	0.0001	0.0314	(0.1775)	0.0804
2000	0.0916	0.0325	1.8799	0.0173	(0.0635)	(0.0074)	0.0661	(0.1670)	0.1286
2001	0.0775	0.0241	2.6514	0.0091	(0.0092)	0.0204	0.0383	(0.0826)	0.0660
2002	0.0700	0.0217	2.9689	0.0073	(0.0059)	0.0151	0.0309	(0.0500)	0.0500
2003	0.0654	0.0194	3.2742	0.0059	(0.0054)	0.0114	0.0259	(0.0389)	0.0427
2004	0.0683	0.0220	2.5171	0.0087	(0.0028)	0.0147	0.0359	(0.0197)	0.0503
2005	0.0836	0.0258	1.9758	0.0130	0.0007	0.0201	0.0554	0.0056	0.0683
2006	0.1845	0.0357	1.5197	0.0235	0.0206	(0.0655)	0.1449	0.0759	0.1860
2007	0.2146	0.0297	1.6507	0.0180	0.0127	0.0196	0.1480	0.1120	0.1587
2008	0.1756	0.0197	2.4206	0.0081	0.0119	0.0069	0.0807	0.1253	0.0670
2009	0.1172	0.0197	2.3826	0.0083	0.0127	0.0067	0.0575	0.0968	0.0454
Speed and,	$1/\lambda^*$ in equilibrium	$1/\lambda^*_G$ G	$1/\lambda^*_{\text{PRI}}$ PRI	i_{actual} actual	$i_{\text{endog.}}$ endogenous	difference	Δd G	$\text{SPRI} - \text{bop}$ PRI	bop TOTAL
7. Peru									
1990	6.07	8.94	11.28	0.1200	0.1428	(0.0228)	(0.0862)	0.0754	(0.0107)
1991	7.77	11.16	10.49	0.1287	0.1132	0.0156	(0.0246)	(0.0326)	(0.0573)
1992	7.12	7.08	8.91	0.1253	0.1273	(0.0020)	(0.0402)	(0.0181)	(0.0582)
1993	7.48	8.04	8.52	0.1426	0.1344	0.0082	(0.0331)	(0.0408)	(0.0739)
1994	6.80	6.45	6.23	0.1668	0.1435	0.0233	0.0242	(0.0793)	(0.0551)
1995	4.34	18.83	5.67	0.1872	0.1786	0.0086	(0.0377)	(0.0393)	(0.0770)
1996	5.51	19.19	6.78	0.1746	0.1549	0.0197	(0.0161)	(0.0511)	(0.0672)
1997	7.93	20.95	4.50	0.1853	0.1676	0.0177	(0.0089)	(0.0508)	(0.0597)
1998	6.46	44.00	2.08	0.1836	0.1619	0.0218	(0.0126)	(0.0573)	(0.0699)
1999	2.90	17.67	5.85	0.1694	0.1336	0.0358	(0.0350)	(0.0004)	(0.0355)
2000	115.19	26.17	5.53	0.1632	0.0925	0.0707	(0.0322)	0.0008	(0.0314)
2001	68.05	11.47	129.09	0.1451	0.1067	0.0385	(0.0312)	0.0036	(0.0276)
2002	53.46	13.32	106.75	0.1374	0.1060	0.0314	(0.0238)	0.0057	(0.0182)
2003	47.88	15.79	99.31	0.1388	0.1058	0.0330	(0.0195)	0.0116	(0.0079)
2004	55.91	17.52	136.86	0.1391	0.0954	0.0437	(0.0139)	0.0473	0.0334
2005	59.99	18.93	154.72	0.1426	0.0940	0.0485	(0.0078)	0.0672	0.0594
2006	72.23	44.69	45.34	0.1485	0.1268	0.0217	0.0156	0.0743	0.0899
2007	52.25	28.80	123.52	0.1661	0.1671	(0.0010)	0.0200	0.0455	0.0655
2008	29.79	28.39	36.94	0.2001	0.2150	(0.0148)	0.0238	(0.0209)	0.0028
2009	30.32	29.98	33.01	0.1710	0.1596	0.0114	0.0207	0.0129	0.0336
Unemployment	n	$n_{\text{EQUIG}} - n$	$n_{\text{EQUIPRI}} - n$	$n_{\text{EQUIG}} - n$	$n_{\text{EQUIG}} - n_{\text{EQUIPRI}} - n$	$n_{\text{EQUIPRI}} - n$	Unem.rate(act)	$\text{SCP}(\text{actual})$	Infla. rate
7. Peru									
1990	0.0218	0.0000	0.0000	0.0000	0.0000	(0.0293)	4.5000		47.7046
1991	0.0199	0.0000	0.0000	0.0000	(0.0536)	0.0055	(0.0261)	4.1273	7.4171
1992	0.0205	0.0000	0.0000	0.0000	0.0131	(0.0014)	(0.0423)	0.7340	1.6674
1993	0.0129	0.0000	0.0000	0.0000	(0.0461)	0.0050	(0.0446)	0.4867	0.9328
1994	0.0172	(0.0171)	0.0000	0.0000	(0.0989)	0.0092	(0.0401)	0.2380	0.4992
1995	0.0316	0.0000	0.0000	0.0000	(0.0939)	0.0115	(0.0320)	0.1111	0.2309
1996	0.0159	0.0000	0.0000	0.0000	(0.0415)	0.0056	(0.0315)	0.1158	0.2374
1997	0.0227	0.0000	0.0000	(0.0228)	0.0312	(0.0044)	(0.0347)	0.0863	0.3001
1998	0.0165	0.0000	0.0000	(0.0161)	(0.0638)	0.0087	(0.0351)	0.0713	0.1677
1999	0.0163	0.0000	(0.0162)	(0.0163)	(0.0383)	(0.0105)	(0.0360)	0.0354	0.1477
2000	0.0152	0.0000	(0.0182)	0.0000	(0.0431)	(0.0116)	(0.0333)	0.0373	0.0935
2001	0.0150	0.0000	0.0000	0.0000	0.0414	(0.0067)	(0.0356)	0.0200	0.0776
2002	0.0144	0.0000	0.0000	0.0000	0.0584	(0.0090)	(0.0437)	0.0020	0.0798
2003	0.0134	0.0000	0.0000	0.0000	(0.0133)	0.0019	(0.0423)	0.0225	0.0739
2004	0.0133	0.0000	0.0000	0.0000	0.0342	(0.0050)	(0.0428)	0.0364	0.0609
2005	0.0127	0.0000	0.0000	0.0000	(0.0324)	0.0045	(0.0428)	0.0163	0.0783
2006	0.0122	0.0000	(0.0352)	0.0000	(0.0766)	(0.0241)	(0.0383)	0.0210	0.0723
2007	0.0117	0.0000	0.0000	0.0000	0.0014	(0.0002)	(0.0378)	0.0167	0.0748
2008	0.0116	0.0000	0.0000	0.0000	0.0672	(0.0106)	(0.0378)	0.0578	0.0857
2009	0.0114	0.0000	0.0000	0.0000	(0.0572)	0.0083	(0.0374)	0.0291	0.0666

Data source: KEWT 5.11–4 for 19 Rest Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

Table A16–2 Peru: Robustness, endogenous parameters and variables, and neutrality of the financial/market assets to the real assets, using M2, ten year debt yield, and the exchange rate

Robustness	HA _B ⁺ _(G)	HA _B ⁺ _(OG)	HA _B ⁺ _(PR)	HA _{OG} ⁺ _(G)	HA _{OG} ⁺ _(OG)	HA _{PR} ⁺ _(G)	Width _{OG}	Width _{OG(OG)}	Width _{OG(PR)}	Width _{HA(OG)}
7. Peru			(0.3509)	0.5280	9.8865	(0.2704)	0.1274	1.5334	#NUM!	0.241
1990	0.3302	0.8865					0.0736	0.3160	0.0226	0.299
1991	0.1932	0.6872	0.0256	0.2458	1.8873	0.0285	0.0835	0.3298	0.0509	0.285
1992	0.2207	0.6421	0.1079	0.2930	1.8839	0.1278	0.0719	0.2341	0.0527	0.216
1993	0.2552	0.6038	0.1732	0.3326	1.6271	0.2023	0.0956	0.0050	0.0841	0.233
1994	0.2859	0.4964	0.2460	0.4105	0.7809	0.3334	0.1645	0.2774	0.1473	0.281
1995	0.3460	0.5676	0.2971	0.5856	1.2087	0.4962	0.1269	0.2185	0.1123	0.194
1996	0.3890	0.5849	0.3451	0.6552	1.3583	0.5490	0.0102	0.2924	0.1591	0.015
1997	0.4210	0.6066	0.3881	0.6593	1.5729	0.6987	0.0232	0.4694	0.1506	0.029
1998	0.4656	0.5887	0.4460	0.7908	3.1689	0.8138	0.0040	0.3715	0.0115	0.004
1999	0.4940	0.5894	0.4764	0.8848	2.3792	0.7952	0.2058	0.4165	0.0638	0.160
2000	0.5226	0.5926	0.5045	1.2887	2.8261	0.8152	0.2097	0.2710	0.2108	0.158
2001	0.5337	0.6397	0.5117	1.3264	1.8068	1.3361	0.2141	0.2966	0.2101	0.154
2002	0.5447	0.6813	0.5149	1.3943	2.0802	1.3607	0.2119	0.3144	0.1997	0.148
2003	0.5530	0.6950	0.5206	1.4338	2.3098	1.3309	0.2095	0.3166	0.1977	0.147
2004	0.5478	0.7066	0.5107	1.4269	2.3599	1.3251	0.2020	0.2964	0.1921	0.144
2005	0.5523	0.7140	0.5124	1.4066	2.2626	1.3169	0.1752	0.3210	0.1517	0.140
2006	0.5794	0.7075	0.5395	1.2499	2.5464	0.6814	0.1701	0.2355	0.1579	0.136
2007	0.6034	0.7246	0.5739	1.2518	1.8818	1.1359	0.1791	0.2267	0.1694	0.135
2008	0.6117	0.7402	0.5816	1.3281	1.8359	1.2274	0.2030	0.2562	0.1922	0.132
2009	0.6184	0.7336	0.5911	1.5352	2.0886	1.4253				
Endogenous	α	δ_0	β^*	Ω	$R_A^* = (1 - \beta^*)$	$X = r^*/g_{Y^*}$	$r^* = \alpha/\Omega$	$r^*_{OG} = \alpha_{OG}/\Omega_{OG}$	$r^*_{PR} = \alpha_{PR}/\Omega_{PR}$	$\delta_0 \alpha$
7. Peru					$x = \alpha/(1 - \beta^*)$		G	PR		
1990	0.0992	(0.6260)	0.3746	0.4345	0.0893	1.8545	0.2282	(0.0063)	(0.4971)	(6.312)
1991	0.1236	(0.2633)	0.2224	0.2058	0.0880	4.9096	0.6007	0.1291	4.8939	(2.130)
1992	0.1105	(0.2833)	0.2516	0.2468	0.0953	3.4499	0.4477	0.0249	1.1212	(2.564)
1993	0.1187	(0.2585)	0.2766	0.2982	0.0972	3.1930	0.3981	0.0050	0.7206	(2.178)
1994	0.0973	(0.3419)	0.3162	0.3553	0.0981	2.1447	0.2739	0.2685	0.2759	(3.513)
1995	0.0930	(0.8831)	0.3998	0.4652	0.1072	1.3024	0.1999	0.1570	0.2180	(9.496)
1996	0.0976	(0.8738)	0.4245	0.5655	0.0891	1.4847	0.1727	0.1144	0.1948	(8.949)
1997	0.0924	(0.3009)	0.4208	0.6600	0.0971	1.3100	0.1400	0.1248	0.1450	(3.247)
1998	0.0958	(0.7876)	0.4666	0.7875	0.0863	1.2677	0.1216	(0.0358)	0.1627	(8.225)
1999	0.0937	(4.1033)	0.4940	0.8849	0.0676	1.4205	0.1059	(0.1203)	0.1598	(43.773)
2000	0.1181	1.1275	0.5973	0.9510	0.0373	2.1365	0.1242	(0.1269)	0.1808	9.548
2001	0.1028	0.9710	0.6001	1.0118	0.0427	1.6055	0.1016	0.0514	0.1146	9.450
2002	0.0976	0.8617	0.6105	1.0641	0.0413	1.5079	0.0917	0.0711	0.0976	8.831
2003	0.0938	0.7859	0.6159	1.1064	0.0406	1.4397	0.0848	0.0580	0.0930	8.378
2004	0.0974	0.8388	0.6157	1.0789	0.0367	1.6591	0.0903	0.0734	0.0957	8.610
2005	0.1176	0.8489	0.6175	1.0750	0.0360	2.0248	0.1094	0.1029	0.1116	7.220
2006	0.2306	0.9073	0.6218	1.0472	0.0480	2.9243	0.2202	0.1209	0.2514	3.935
2007	0.2687	0.8271	0.6339	1.0996	0.0612	2.5368	0.2443	0.2150	0.2533	3.078
2008	0.2332	0.6838	0.6366	1.1940	0.0781	1.7039	0.1953	0.2469	0.1799	2.932
2009	0.1800	0.5721	0.6544	1.3141	0.0551	1.7233	0.1369	0.1839	0.1231	3.179
Neutrality c	$m_K = M/K$	$m_Y = M/Y$	$m_I = M/I$	$r_{DEBT} = r^*$	$r_{DEBT}^* = r^*$	$e(US)/g_{Y^*} = r^*$	$r^* = r^*(US)$	$e^*(US)$	$e(US)/e^*(US)$	$y^{**} = y^*/r^*(US)$
7. Peru					$g_{Y^*} = g_{Y^*}/g_{Y^*}(US)$	$c^*(US) = c(US)$				
1990	0.3180	0.1382	1.3934	47.5168	209.2110	31.31	0.1545	517.05	0.9997	42732
1991	0.3252	0.0669	0.5413	6.9143	12.5098	44.19	0.5334	960.53	0.9994	12523
1992	0.2785	0.0687	0.6221	1.2903	3.8818	60.14	0.3744	1630.37	0.9998	12835
1993	0.2333	0.0646	0.5861	0.5759	2.4466	201.66	0.3316	2160.33	0.9998	15930
1994	0.1793	0.0637	0.6546	0.2621	1.9571	302.11	0.2091	2180.21	0.9999	16150
1995	0.1482	0.0689	0.7413	0.0721	1.3607	0.23	0.1413	2.45	0.9423	16.18
1996	0.1287	0.0728	0.7456	0.0883	1.5117	0.38	0.1164	2.72	0.9571	18.19
1997	0.1624	0.1072	1.1605	0.1600	2.1431	0.46	0.0878	2.82	0.9688	13.67
1998	0.1630	0.1284	1.3405	0.0466	1.3833	0.76	0.0713	3.23	0.9779	21.96
1999	0.1608	0.1423	1.5183	0.0418	1.3943	1.39	0.0567	3.57	0.9841	40.01
2000	0.1374	0.1306	1.1062	0.0018	1.0148	2.75	0.0740	3.60	0.9794	0.453
2001	0.0797	0.0806	0.7846	0.0001	1.0015	1.74	0.0423	3.49	0.9879	2.082
2002	0.0785	0.0835	0.8556	0.0098	1.1069	1.29	0.0152	3.53	0.9957	4.216
2003	0.0772	0.0854	0.9104	0.0085	1.1004	1.20	0.0013	3.46	0.9996	5.542
2004	0.0932	0.1006	1.0327	0.0016	1.0179	1.45	0.0033	3.28	0.9990	4.783
2005	0.1124	0.1209	1.0282	(0.0053)	0.9519	1.41	0.0127	3.44	0.9963	4.078
2006	0.1166	0.1221	0.5294	(0.1122)	0.4905	1.28	0.1375	3.33	0.9587	0.531
2007	0.1325	0.1457	0.5423	(0.1398)	0.4277	1.05	0.1757	3.17	0.9446	0.551
2008	0.1370	0.1636	0.7014	(0.0899)	0.5396	0.71	0.1210	3.26	0.9629	1.901
2009	0.1385	0.1820	1.0112	(0.0506)	0.6302	0.77	0.0686	2.96	0.9768	3.923

Data source: KEWT 5.11–4 for 19 Rest Area by sector, 1990–2009, whose original data are *International Financial Statistics Yearbook*, IMF

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