Chapter 11

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

Signpost to Chapter 11

There are theory, practice, and history, in any science. This chapter sums up KEWT data-sets empirically from the viewpoint of economic stages and growth. The economic stages, however, are transparent historically and philosophically. Since Smith Adam (1776), almost two centuries and a half have passed. Except for the last half century, scholars and economists had studied and solved economic growth problems, without national accounts calculation system. Economic theories, nevertheless, had progress strongly step by step, like weeds, without fertilizer or tests for theories. In the meantime, leaders and people had experienced the Industrial Revolution for the first time in human history. It is surprising for scholars to create economic theories decade after decade, even in the times of no statistical-data.

Kuznets, S. (1941, 1952, 1966, 1971) had continuously researched economic stage and growth by country. In the 1960s, the data-sets were rough compared with the latest data after the 2000s. Scholars and economists even today consent that Schumpeter, J. A. (1912, 1938, 1954) is the Father of modern economics for technological progress. Economic theories including Schumpeter's, however, are all demand and supply price-oriented even up to date. The author here loudly indicates that this price-oriented stream had brought about wars after wars. What is its foundation? In earlier days of Smith and Ricardo, it was thought that an economy or nation converged to the steady state and finally creased growth. To avoid no growth, an open economy was needed and divided into two: security first and free trade first. To maintain growth and drive the steady state away, technological progress is a universal means. Nevertheless, human behavior wants more money endlessly and is inclined to control other countries with power, under a big wave for colonialism, and repeats wars to solve problems, within and out of nations.

The author pays attention to heterogeneous culture and history by area, as well recognized by Kuznets. This philosophy needs two paradigm rotations of theories and methodologies. Needless to say, the first rotates from the price-equilibrium to the endogenous-equilibrium; the second rotates from homogeneous to heterogeneous. All problems are solves endogenously cooperatively and peacefully. Historical review and revisit of the literature clearly prove these rotations are true, without unemployment and

with a low inflation. And, these rotations co-exist with the current modern economics. Now, macroeconomics[1] independently is Mother as Chapter 1 clarified the base.

This chapter does not step into the above history. Instead, in conclusion at the end, the author refers to several articles related to technological progress policy in Singapore, China, and Mexico, after briefly reviewing 'competiveness report.'

11.1 Introduction

The current stream in developing countries quantitatively makes them hurry up in order not to be behind other countries. The author feels this atmosphere at G7, G20, and other conferences, 2012. It is of course natural that we need growth for full-employment even under tight budgetary control. The author, however, proves that for this reason each country must choose the best second path that guarantees sustainable growth as a short cut and in reality. This chapter takes advantage of six organic aspects and empirically clarifies facts and methods to the correct path policy-makers all look for with feverish eyes, as we run after Blue Birds.

This chapter examines and summarizes different transition processes from young-developing to robust-developing and, further to developed stages, by country. African countries are not included in this chapter because KEWT series have not enough data-sets by country for African area, in particular, deficit by year and over years. This chapter also does not concretely step into developed stage countries. The developed stage is separately discussed in other chapters as recognizably by those titles of fiscal policy or fiscal multiplier and the size of government. This chapter, finally in Conclusion, refers to the current variety of articles, compares, and comments each methodology. What elements guarantee stable growth by country? This is the purpose of this chapter.

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

[1] Macroeconomics is most fitted for pursuing true results as a unit of causes and effects since Smith (1776). The private sector is most fitted for pursuing business cycle since Schumpeter (1928). Jorgenson, D. W., and Griliches, Z. (1967) rotates one paradigm from stock to flow as capital investment for technological progress (for simultaneous measure of flow and stock of capital, see Chapter 6). This rotation needs one more rotation of the consistency between flow and stock (see, Chapter 16). Macroeconomics endlessly continue to grow, generation after generation in the endogenous system. Right now, leaders and policy-makers are able to focus on green/eco economics. Green/eco buries holes to fall into, since world resources are limited and we endogenously attain maximum returns under minimum net investment, as shown by hyperbola and its graph (see, Chapters 7 and 15).

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 chapter treats sixteen cases of the transition processes at the young-developing stage beginning in 1990. Some countries grew steadily and got into the next stage while others moved 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 are: 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.

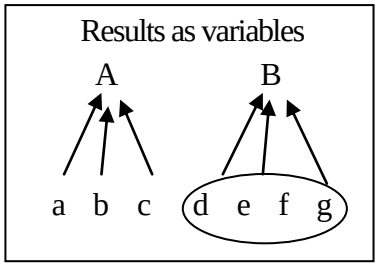
The endogenous system, contrarily, reverses the above concepts and definitions completely. This system does not distinguish estimate with measure since the system measures all the data after converting actual data to endogenous data. Measurement is most strict to the extreme and, differs from the concepts of estimate, calculate, and forecast. Endogenous data change, by item, year, country, and sector; never repeating again over years, just like ad hoc. Endogenous data, nevertheless, 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 forecasted data. Due to one theory and practice unity, causes and results at endogenous data 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.

In order to solve this problem in six organic aspects, the author introduces two new devices; (1) 'eight policy determinants' to *control* seven endogenous parameters and (2) 'five pattern-settings' to *examine* six organic aspects. A series of BOXES are shown. 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, as shown in **BOX 11-1**.

BOX 11-1 A shift of paradigm of causes and results: vertical versus wholly

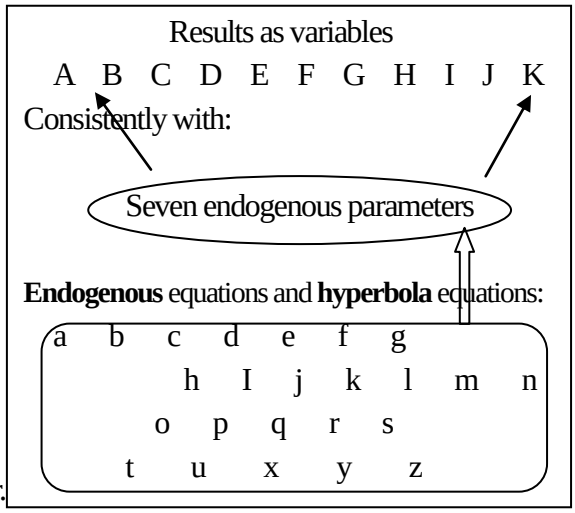
From: **Factor** causes and results: using actual combinations of **parts**



a, b, c are vertically connected with A.
e, f, g are vertically connected with B.
A and B are not horizontally consistent.

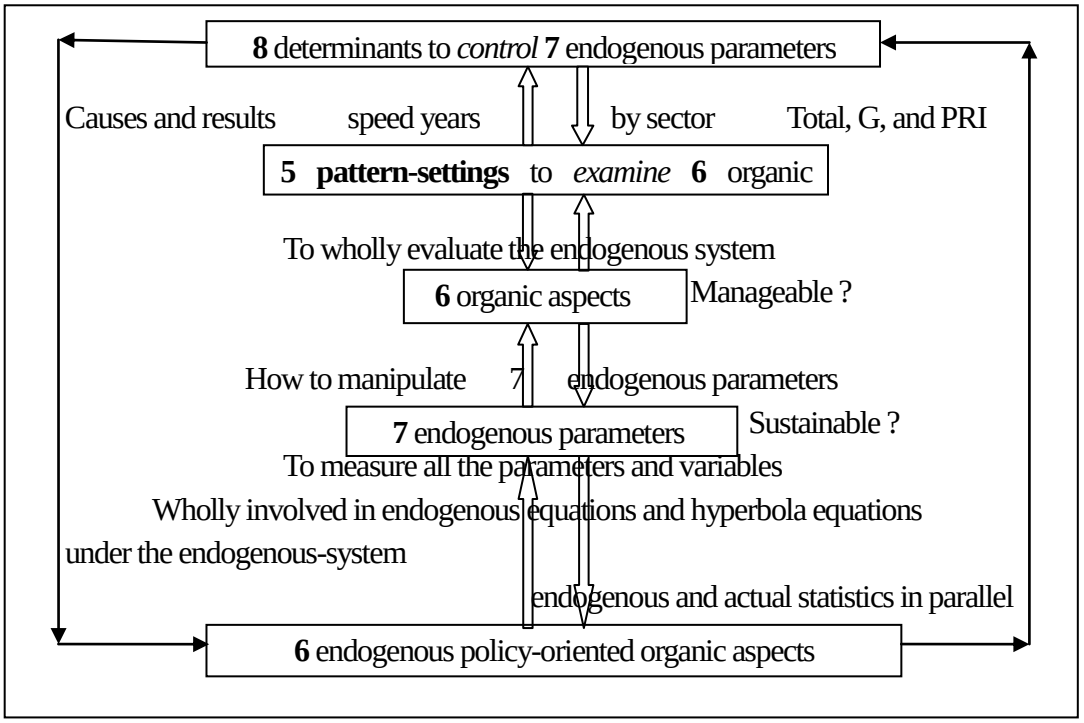
All the variables and seven endogenous-parameters are consistent with each other.
Seven endogenous parameters are consistent with all the equations each other.

To: **Organic** causes and results:
Using endogenous policy-oriented organic system



Supported by all the strategies and tactics

BOX 11-2 Endogenous parameters, organic aspects, and pattern-settings in the endogenous system



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BOX 11-1 shows the background of the endogenous-system from the viewpoint of causes and results and clarifying the differences between vertical and whole. Data use statistics but no external. Data are all converted to endogenous as a whole system, starting with simultaneous measurements of capital and the rate of return.

BOX 11-2 is designed for evaluating stage processes by country and shows up *five* pattern-settings that take advantage of basic endogenous ratios.[2] Pattern-settings are mostly based on *six* organic aspects (for *six* organic aspects in detail, see Notations at the beginning of Monograph). Background of *five* pattern-settings is endogenously related to all of i) seven endogenous parameters, ii) eight policy determinants, and iii) six organic aspects.

The items related to *five* pattern-settings are the following.

i) *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 $i_G = I_G/Y_G$.

ii) *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.

iii) *Six* organic aspects: for simplicity, *eight* policy determinants are used as a surrogate.

The items *five* pattern-settings directly treat 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.

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

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[2] Basic endogenous equations in the endogenous model/system:

1. The capital-output ratio, $\Omega = K/Y$: $\Omega^* = \frac{\beta^* \cdot i(1-\alpha)}{i(1-\beta^*)(1+n)+n(1-\alpha)}$.
2. The qualitative coefficients, *beta**: $\beta^* = \frac{\Omega^*\left(n(1-\alpha)+i(1+n)\right)}{i(1-\alpha)+\Omega^* \cdot i(1+n)}$.
3. The coefficient of diminishing returns, *delta*$_0$: $\delta_0 = 1 + \frac{LN(\Omega^*)}{LN(B^*)}$ 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, $\alpha = \Pi/Y$: $(1-\alpha) = \frac{c}{(rho/r)}$, $\frac{K}{L} = \frac{(\alpha/(1-\alpha)}{(r/w)}$, and $k = \frac{w \cdot \Omega}{1-r \cdot \Omega}$.
7. $\sigma = 1.0 = \frac{\Delta k/k}{\left(\Delta\left(\frac{r}{w}\right)\right)/\frac{r}{w}}$ holds in the transitional path.

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 difficulties at any economic stage.

11.2 How to Classify Six Organic Aspects to Conquer Difficulties at an Economic Stage

There are six organic aspects for any country to conquer difficulties 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 *sigma*[3] 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 [4] 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 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.

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[3] The *sigma* is similar to the literature and defined as $\sigma = \frac{-\Delta k/k}{\Delta(r/w)/(r/w)}$. In the author's discrete Cobb-Douglas production function, it is calculated as $\sigma = \frac{-\Delta k/\left(\frac{k_0+k_1}{2}\right)}{\Delta(r/w)/\left(\frac{r_0+r_1}{2}/\frac{w_0+w_1}{2}\right)}$. The *sigma* 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.

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

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*,[5] 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.

11.3 Secret of Success to Solve Problems at 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.

[5] 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) $(r/w) = \frac{\alpha/(1-\alpha)}{K/L}$.

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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 corns, 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 a 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 a burden so much. 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.

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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.

11.4 Five Pattern-settings to Examine Balanced Levels by Country

This section is a highlight of this chapter. The author selects sixteen countries: Turkey, Ukraine, Kazakhstan, Pakistan, Bangladesh, Indonesia, Philippines, Sri Lanka, Vietnam, Mexico, Argentina, Bolivia, Chile, Columbia, Paraguay, and Peru. The author does not include African and Near East countries, partly due to widely-ranged qualitative differences of data disclosed at *International Financial Statistics Yearbook*, IMF. It is true that peaceful world economies are guaranteed by stop-inequality. Stop-inequality has two aspects: macro and micro, where endogenous policies absorb all the strategies and tactics, through seven endogenous parameters. If seven endogenous parameters are controllable, 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 mitigated by balanced pattern-settings.

BOX 11-3 Characteristics of younger-stage of 16 countries, 2009

2009	The capital-output ratio				2009	$(S_{PRI}-I_{PRI})/Y$ 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	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, $x=alpha/(i-beta^{*})$				2009	Diminishing returns to capital coefficient, $delta_0$				
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 from *International Financial Statistics Yearbook*, IMF. KEWT 5.11-5 Data-source of Tables A2-3 and A3-3 is each the same.

This section examines and evaluates results of each country by using five pattern-settings. 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 using BOX 11-3, 11-4, and 11-5. The author explains each of a series of BOXES step by step after **BOX 11-3**.

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

1. Pattern Smooth: $0.15 < \alpha < 0.25$, balanced and smooth.
2. Pattern Irregular: $0.05 < \alpha < 0.125$ or $0.30 < \alpha < 0.50$, with strong individuality.
3. Pattern Difficult: α unstable and fluctuating, sometimes close-to-disequilibrium.
4. 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:

1. Pattern Robust: $n_E - n = 0$ by year, balanced and smooth.
2. Pattern Usual: $n_E - n \neq 0$, a few times in earlier 1990s and 2009, sometimes close-to-disequilibrium.
3. Pattern Difficult: $n_E - n \neq 0$, repeatedly, 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 takes 'a plus real cost of capital at the total economy.' 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. Plus signed high cost of capital is preferable to minus signed one. Because: (1) If the rate of return is higher than the growth rate of output, net investment is encouraged. (2) If deficit rise up beyond a certain range the cost of capital turns to minus first at the G sector. The *four* Patterns are as follows:

1. Pattern Smooth: plus $CC^*_{REAL(G)}$ and $CC^*_{REAL(PRI)}$, balanced and smooth.
2. Pattern Private-oriented: minus $CC^*_{REAL(G)}$ but plus $CC^*_{REAL(PRI)}$, with strong individuality.
3. Pattern Government-oriented: minus $CC^*_{REAL(G)}$ and $CC^*_{REAL(PRI)}$, sometimes close-to-disequilibrium.
4. 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 crises. Note that the private sector actually runs even under government-orientation. 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:

1. Pattern Smooth: $1.0 < v^* < 2.75$ (except for early 1990s), balanced and smooth.
2. Pattern Avoid: $v^* < 1.0$ or $v^* > 4.0$, with steady change in policies.
3. Pattern Policy-Warning: $\text{minus } v^*$ included, towards urgent change in policies.
4. Pattern the Lowermost: $\text{no value of } v^*$, revolutionary revival required.

Pattern Smooth: Turkey, Kazakhstan, Indonesia, Philippines, Argentina (after2002), 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 known how to guard against instant-oriented funds. The mobility of capital among countries is endogenously guaranteed under a moderate equilibrium. Recall that bubbles earn huge profits at the sacrifice of financial institutions, which must be finally rescued by deficit by country.

BOX 11-4 Characteristics of younger-stage of 16 countries, 1990

1990	The capital-output ratio				1990	$(S_{PRI}-I_{PRI})/Y$ 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			
	Phili., 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/(i·beta*)				1990	Diminishing returns to capital coefficient, $delta_0$				
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

BOX 11-5 Characteristics of younger-stage of 16 countries, 2000

2000	The capital-output ratio				2000	$(S_{PRI}-I_{PRI})/Y$ 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/(i·beta*)				2000	Diminishing returns to capital coefficient, $delta_0$				
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	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

Notes for BOX 11-3, 11-4, and 11-5:

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 from *International Financial Statistics Yearbook*, IMF. Figures 3, 4, and 5 are based on the same KEWT 5.11-5.

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

Five pattern-settings by aspect were 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, and 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. It implies that it is difficult for young-developing stage countries to clearly distinguish *common* with *peculiar* characteristics.

11.5 Reinhart and Rogofff (2009), Lall (2001), Kuruvilla et al (2002), and Castillo, A. et al (2005): Common *v.s.* Peculiar Characteristics

This section reviews a few impressive articles to seek the characteristics at young-developing countries common to developed countries. The author understands that common is a concept for long periods while peculiar short and long periods. Author's five pattern-settings are applied to 21 years, 1990-2010, as short periods. Carmen M. Reinhart and Kenneth S. Rogoff (249-273, 2009) devises long periods, 1900-2005/2008, 1800-2008 or 1820-2000, with resultant analyses. Reinhart and Rogoff (ibid.; hereunder R & R) surprisingly presents one of most reliable data to us. The researches by R & R are based on four relationships between banking crisis, currency crashes, default, and inflation (BCDI). As a result, R & R develops a composite index called the BCDI Index. This Index is commonly applicable to many countries, developed and developing. The four items of R & R, no doubt, constitute author's 'characteristics common to developed countries and developing countries.' The four items correspond with author's five pattern-settings in this chapter. Five pattern-settings do not step into indexes while the four items of R & R develops the BCDI Index among countries based on country and area data.

The author reviews and introduces three points in R & R (263,ibid.). First is Figure 16.7 of R & R (263, ibid.). The x axis shows time after of t, t+1, t+2, t+3,…, t+9, t+10, t+11, at global stock markets during global crisis. The y axis shows Composite Real Stock Price Index (End of Period), where Index (t) 2007=100. 11936 is exceptionally high and long. Others are significantly lower and shorter. Second is Figure 16.8 of R & R (264, ibid.). The x axis shows time after of t, t+1, t+2, t+3,…, t+9, t+10, t+11, at Real per capita GDP during global financial crisis and, the y axis shows GDP Index, where WEO 2009, Index 2008=100. Figure 16.8 compares Emerging economies, WEO (World Economic Outlook); Advanced economies, WEO; Western Europe; Latin America; and Australia, Canada, New Zealand, United States. GDP recovers promptly and shortly in the case of two WEOs while other three cases sharply fall and then recover gradually. Except for the case of WEO at Figure 16.8, three cases correspond with author's speed years in equilibrium. Supposing that author's neutrality of the

financial/market assets to the real assets holds, Figure 16.7 is plausibly replaced by real-assets recovery.

Third is Figure 16.12 of R & R (271, ibid.). Figure 16.12 shows The sequencing of crises: A prototype. Figure 16.12 is related to i) Diaz-Alejandro; ii) Kaminsky and Reinhart "twin crises;' iii) Capital controls introduced or increased round this time; and iv) Reinhart and Rogoff (2008c) - - no clear sequence of domestic versus external default. I), ii), ii), and iv) are shadowed in Figure 16.12. Figure 16.12 leads to the BCDI Index. Author's comment is the following: From the viewpoint of financial/market-assets, the prototype is the best in the literature. The prototype exactly corresponds with author's processes to recover equilibrium from close-to-disequilibrium or disequilibrium. Under the endogenous-equilibrium, the processes are numerically measured directly by seven endogenous parameters or understandably by *five* pattern-settings developed in this chapter. Underlying situations are similar to the prototype. This is because the price-equilibrium directly shows the results although the processes are not clarified. The price-equilibrium and the endogenous-equilibrium are the same and completely overlap. The price-equilibrium only shows results while the endogenous-equilibrium clarifies the processes numerically. In particular, R & R is most close to the endogenous-equilibrium. This is because deficits and debts are a base for the cyclical prototype of R & R. Deficits and debts are a key for connecting the financial/market assets with the real assets. And, deficits and debts are characteristics common to advanced/developed and developing countries. In fact, almost all the countries, according to R & R, have experiences of default and bankruptcy by country after 1800.

Economic stage theories have advanced, one step forwards and half step backwards, after industrial revolution, generation after generation and, from selfish to altruistic. Economic methodologies have freely widened, from micro to macro and, from policies to strategies.

Second, turning to peculiar characteristics, the author briefly reviews Lall, S. (2001). Look at 'competitiveness indices and developing countries' by Lall (ibid.): Tables 1 to 4 in Lall (1502, 1516, 1517, 1518, ibid.) compares two indexes, IMD (2000) and WEF (2000), with such data as categories of variable, R &D, and royalties ranking. Index and ranking differs with its own criterion for competitiveness by country. To solve this problem universally, the author presented an essential ratio analysis at Chapter 8. This chapter, instead of indices, tried to express competitiveness using *five* pattern-settings based on six organic aspects.

Third, the author picks up Singapore assessed by Kuruvilla, S., Erickson, CL., and Hwang, A. (2002). Kuruvilla et al (1461-1476, ibid.) investigates a strategy such as skill development system for competiveness. Strategies must be Blue Birds chosen freely yet, without numerical integration or aggregation of data as a whole system. Skills development is evaluated as results. The endogenous system contrarily needs strategies

to support and reinforce polices. The endogenous system reflects and measures the results of skills development. In this respect, Kuruvilla et al (ibid.) is a good work needed for endogenous policies. A problem is how to absorb 'skills development' into endogenous policies synthesized as a whole system.

Fourth, the author pays attention to Castillo, A., Magana, A., Pujadas, A., Martinez, L., and Godinez, Z. (2005). Castillo, A. et al (630-643, ibid.) investigates 'rural people with ecosystems' experimented at a region in Mexico. The experiment presents a typical case of universal policy and strategy. Past three century history of agriculture and industries suggests that this experiment does not end but is deepened nearer to nature, from chemical fertilizer to natural circling fertilizer and, from eroded to fermented soil, body, and society; nearer to nature. Endogenously, the direction expressed by Castillo, A. et al (ibid.) is indispensable. Because, the qualitative net investment coefficient measures and realizes that direction most numerically.

Castillo, A. et al (ibid.) was expected to be *peculiar* but ultimately resulted in the *common* characteristics.

11.6 Conclusions

Why did some young-developing countries conquer their difficulties and get into the next stage while others stayed at the same stage up and down for many years? Do young-developing stage countries have strong personality of national taste/preferences, culture, and history than developed stage countries? No, strong personality is not the reason why some countries cannot get into the next-stage. *Five* pattern-settings (BOXES 3 to 5, with 32 Tables by country), prove that true causes are unbalanced activities between government and private sectors. It is difficult for young-developing countries to flexibly adjust various priorities of short- and long-term polices, compared with the case of robust-developing countries. This fact identifies a *peculiar* characteristic of young-developing countries. The young-developing stage needs a consecutive high level of net investment over years. Distribution of net investment between public infrastructure and enterprises is delicate. Economic circumstances change quickly and sharply. Net investment and its distribution between government and private sectors need to be long-sighted. Unbalanced periods are indispensable at young-developing countries. Financial support is required consecutively and stably. When real-assets policies do not match financial-assets policies, the speed years are instable and fall into close-to-disequilibrium. Most of young countries, 1990-2010, have severely experienced close-to-disequilibrium.

On the other hand, *common* characteristics of young-developing stage countries are based on the endogenous structure of the balance of payments. Here the author does not repeat deficits and debts to control the balance of payments (see R & R above). If a

country is instable in endogenously maintaining the balance of payments, its economy becomes instable and cannot get into the next stage. A true fact for the balance of payments is not a high plus level but a stable plus or minus level to some extent. A flexible range of the balance of payments makes the rate of technological progress stable. A high plus level of the balance of payments damages sustainable growth in the long run.

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

Once a young-developing country falls into economic difficulties, the tide changes at once and adversely; the market reaction is severe more than at the robust-developing country. Net investment is stabilized by dynamic policies, fast and flexible, but it is difficult for the young-developing countries to execute fast and flexible policies to the real assets. Conclusively, *peculiar* and *common* characteristics are tightly related in the case of the young-developing stage.

When the world economies are stuck after bubbles, waste deficits, and weaken sustainable growth in the long run, enterprise managers cry out money supply much more. Any country cannot fasten international money within the country, once the country turns to the worse and loses its attractiveness to investors. Or, excessive money returns back to central banks. Therefore, ample helicopter money supply in the world remains psychological effect. We need improvement in the real-assets through seven endogenous parameters. We need assessment of five pattern-settings to examine effective policies by country. Then the neutrality of the financial assets to the real assets is strengthened and, the market becomes calm. It implies that an economy cannot survive alone and selfishly. We need cooperation, not fighting but for others. Safely we return back to human original thought and philosophy.

Finally Lewis, Arthur, W. (139-191, 1954; 1978; 1-10, 1984) has, historically and socially, investigated actual environmental causes and results among many countries for so many decades. His experienced viewpoint of trades and prices between two countries is supreme. Analyses in this chapter needs to broadly interpret author's neutrality of the financial/market assets to the real assets and, to review pattern settings and mobility of capital and labor, from his everlasting viewpoint at commodity and industry bases.

For readers' convenience: contents of tables and figures hereunder

Using two page tables for 16 countries: From Tables C1-1 and C1-2 at Turkey to Tables C16-1 and C16-2 at Peru, by country.

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

Turkey, Ukraine, Kazakhstan, Pakistan, Bangladesh, Indonesia, Philippines, Sri Lanka, Vietnam, Mexico, Argentina, Bolivia, Chile, Columbia, Paraguay, and Peru.

Table C1-1 **Turkey:** Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + PRI = bop$, the rates of change in population and unemployment

Cost of capit	$HA_{r^*(i)}$	r^*-$HA_{r^*(i)}$	$v^*=r^*/(r^*-g_Y{}^*)$	CC^*_{REAL}	$CC^*_{REAL(G)}$	$CC^*_{REAL(PRI)}$	$CC^*_{NOMINAL}$	$CC^*_{NOMI(G)}$	$CC^*_{NOMI(P)}$
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	1.7868	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,	$1/\lambda^*$	$1/\lambda_G{}^*$	$1/\lambda_{PRI}{}^*$	$\mathbf{i_{actual}}$	$\mathbf{i_{endoge.}}$	difference	Δd	s_{PRI}-i_{PRI}	bop
14. Turkey	in equilibriur	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	0.0106
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	(0.0129)
Unemployme	**n**	$n_{EQUI(G)}$-n	$n_{EQUI(PRI)}$-n	n_{EQUI}-n	$n_{EQUI(G)}$-n_G	$n_{EQUI(PRI)}$-n_P	Unem.rate(act	$g_{CPI(actual)}$	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 from *International Financial Statistics Yearbook*, IMF.

Chapter 11

Table C1-2 **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	$HA_{\beta^*(i)}$	$HA_{\beta^*(i)G}$	$HA_{\beta^*(i)PRI}$	$HA_{\Omega*(i)}$	$HA_{\Omega G*(iG)}$	$HA_{\Omega PRI*(iPRI)}$	$Widt_{\Omega(i)}$	$Width_{\Omega G(iG)}$	$Width_{\Omega P(iP)}$	$Wid/HA_{\Omega(i)}$
14. Turkey		G	PRI		G	PRI		G	PRI	
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	0.183
1992	0.4924	4.5380	0.5790	0.8781	(1.0535)	1.2497	0.0217	0.1004	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	(0.0327)	0.3884	1.8947	0.0155	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	$g_A^*=i(1-\beta^*)$	$x=r^*/g_Y^*$	$r^*=\alpha/\Omega$	$r^*_G=\alpha_G/\Omega_G$	$r^*_{PRI}=\alpha_P/\Omega_P$	δ_0/α
14. Turkey						x=a/(i -b*)		G	PRI	
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)	(3.212)
2005	0.1175	(0.4501)	0.3412	0.3851	0.0665	3.4085	0.3050	0.1248	(5.6323)	(3.832)
2006	0.1105	(0.5068)	0.3718	0.4537	0.0780	2.3942	0.2437	0.1060	1.5335	(4.585)
2007	0.1245	(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 o	$m_K=M/K$	$m=M/Y$	$m_\Pi=M/\Pi$	$r_{(DEBT)}-r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)}/gy^{**}$	$r^*-r^*_{(US)}$	$e^*_{(US)}$	$e_{(US)}/e^*_{(US)}$	$e_{(US)}/y^{**}$
14. Turkey						gy**=gy*/gy*(US)		e*(US)=e(US)+(r*-r*(US))		y**=y*/y*(US)
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	0.5993	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	3.9903	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 from *International Financial Statistics Yearbook*, IMF.

Table C2-1 **Ukraine:** Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + PRI = bop$, the rates of change in population and unemployment

Cost of capit	$HA_{r^*(i)}$	$r^*-HA_{r^*(i)}$	$v^*=r^*/(r^*-g_Y{}^*$	CC^*_{REAL}	$CC^*_{REAL(G)}$	$CC^*_{REAL(PRI)}$	$CC^*_{NOMINAL}$	$CC^*_{NOMI(G)}$	$CC^*_{NOMI(P)}$
15. Ukrain	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,	$1/\lambda^*$	$1/\lambda_G{}^*$	$1/\lambda_{PRI}{}^*$	$\mathbf{i_{actual}}$	$\mathbf{i_{endoge.}}$	difference	Δd	$s_{PRI}-i_{PRI}$	bop
15. Ukrain	in equilibriun	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)
Unemployme	**n**	$n_{EQUI(G)}-n$	$n_{EQUI(PRI)}-n$	$n_{EQUI}-n$	$n_{EQUI(G)}-n_G$	$n_{EQUI(PRI)}-n_P$	Unem.rate(act	$g_{CPI(actual)}$	Infla. rate
15. Ukrain	under attaining equilibrium			under the same wage rate by sector			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	(0.0975)	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 from *International Financial Statistics Yearbook*, IMF.

Chapter 11

Table C2-2 **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	$HA_{\beta^*(i)}$	$HA_{\beta^*(i)G}$	$HA_{\beta^*(i)PRI}$	$HA_{\Omega*(i)}$	$HA_{\Omega G*(iG)}$	$HA_{\Omega PRI*(iPRI)}$	$Widt_{\Omega(i)}$	$Width_{\Omega G(iG)}$	$Width_{\Omega P(iP)}$	$Wid/HA_{\Omega(i)}$
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	1.3886	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_0	β^*	Ω	$g_A^*=i(1-\beta^*)$	$x=r^*/g_Y^*$	$r^*=\alpha/\Omega$	$r^*_G=\alpha_G/\Omega_G$	$r^*_{PRI}=\alpha_P/\Omega_P$	δ_0/α
15. Ukraine						x=a/(i−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	(0.0055)	(7.651)
1999	0.1077	(0.2390)	0.6411	2.0515	0.0403	1.4987	0.0525	0.1839	(0.0080)	(2.219)
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	$m_K=M/K$	$m=M/Y$	$m_\Pi=M/\Pi$	$r_{(DEBT)}-r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)}/gy^{**}$	$r^*-r^*_{(US)}$	$e^*_{(US)}$	$e_{(US)}/e^*_{(US)}$	$e_{(US)}/y^{**}$
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	9.09
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 from *International Financial Statistics Yearbook*, IMF.

Table C3-1 **Kazakhstan:** Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + PRI = bop$, the rates of change in population and unemployment

Cost of capit	$HA_{r^*(i)}$	$r^*-HA_{r^*(i)}$	$v^*=r^*/(r^*-g_{Y^*})$	CC^*_{REAL}	$CC^*_{REAL(G)}$	$CC^*_{REAL(PRI)}$	$CC^*_{NOMINAL}$	$CC^*_{NOMI(G)}$	$CC^*_{NOMI(P)}$
9. Kazakhs	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,	$1/\lambda^*$	$1/\lambda_G^*$	$1/\lambda_{PRI}^*$	$\mathbf{i_{actual}}$	$\mathbf{i_{endoge.}}$	difference	Δd	$s_{PRI}-i_{PRI}$	bop
9. Kazakhs	in equilibriun	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
Unemployme	**n**	$n_{EQUI(G)}-n$	$n_{EQUI(PRI)}-n$	$n_{EQUI}-n$	$n_{EQUI(G)}-n_G$	$n_{EQUI(PRI)}-n_P$	Unem.rate(act	$g_{CPI(actual)}$	Infla. rate
9. Kazakhs	under attaining equilibrium			under the same wage rate by sector			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 from *International Financial Statistics Yearbook*, IMF.

Chapter 11

Table C3-2 **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	$HA_{\beta^*(i)}$	$HA_{\beta^*(i)G}$	$HA_{\beta^*(i)PRI}$	$HA_{\Omega*(i)}$	$HA_{\Omega G*(iG)}$	$HA_{\Omega PRI*(iPRI)}$	$Widt_{\Omega(i)}$	$Width_{\Omega G(iG)}$	$Width_{\Omega P(iP)}$	$Wid/HA_{\Omega(i)}$
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	$g_A^*=i(1-\beta^*)$	$x=r^*/g_Y^*$	$r^*=\alpha/\Omega$	$r^*_G=\alpha_G/\Omega_G$	$r^*_{PRI}=\alpha_P/\Omega_P$	δ_0/α
9. Kazakhstan						$x=\alpha/(i\ \beta^*)$		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	$m_K=M/K$	$m=M/Y$	$m_\Pi=M/\Pi$	$r_{(DEBT)}-r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)}/gy^{**}$	$r^*-r^*_{(US)}$	$e^*_{(US)}$	$e_{(US)}/e^*_{(US)}$	$e_{(US)}/y^{**}$
9. Kazakhstan						$gy^{**}=gy^*/gy^*(US)$		$e^*(US)=e(US)+(r^*-r^*(US))$		$y^{**}=y^*/y^*(US)$
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 from *International Financial Statistics Yearbook*, IMF.

Table C4-1 **Pakistan:** Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + PRI = bop$, the rates of change in population and unemployment

Cost of capit	$HA_{r^*(i)}$	$r^*-HA_{r^*(i)}$	$v^*=r^*/(r^*-g_Y{}^*)$	CC^*_{REAL}	$CC^*_{REAL(G)}$	$CC^*_{REAL(PRI)}$	$CC^*_{NOMINAL}$	$CC^*_{NOMI(G)}$	$CC^*_{NOMI(P)}$
11. Pakista	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	0.0010	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,	$1/\lambda^*$	$1/\lambda_G{}^*$	$1/\lambda_{PRI}{}^*$	$\mathbf{i}_{actual}$	$\mathbf{i}_{endoge.}$	difference	Δd	$s_{PRI}-i_{PRI}$	bop
11. Pakista	in equilibriu	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)	(0.0206)	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	(0.0106)	(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)
Unemployme	**n**	$n_{EQUI(G)}-n$	$n_{EQUI(PRI)}-n$	$n_{EQUI}-n$	$n_{EQUI(G)}-n_G$	$n_{EQUI(PRI)}-n_P$	Unem.rate(act	$g_{CPI(actual)}$	Infla. rate
11. Pakista	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 from *International Financial Statistics Yearbook*, IMF.

Chapter 11

Table C4-2 **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	$HA_{\beta^*(i)}$	$HA_{\beta^*(i)G}$	$HA_{\beta^*(i)PRI}$	$HA_{\Omega*(i)}$	$HA_{\Omega G*(iG)}$	$HA_{\Omega PRI*(iPRI)}$	$Widt_{\Omega(i)}$	$Width_{\Omega G(iG)}$	$Width_{\Omega P(iP)}$	$Wid/HA_{\Omega(i)}$
11. Pakistan		G	PRI		G	PRI		G	PRI	
1990	0.4474	0.2538	0.4805	1.6224	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	$g_A^*=i(1-\beta^*)$	$x=r^*/g_Y^*$	$r^*=\alpha/\Omega$	$r^*_G=\alpha_G/\Omega_G$	$r^*_{PRI}=\alpha_P/\Omega_P$	δ_0/α
11. Pakistan						$x=\alpha/(i\ \beta^*)$		G	PRI	
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	1.3866	0.6064	0.8461	0.0388	1.8062	0.1278	(0.0382)	0.2225	12.827
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	$m_K=M/K$	$m=M/Y$	$m_\Pi=M/\Pi$	$r_{(DEBT)}-r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)}/gy^{**}$	$r^*-r^*_{(US)}$	$e^*_{(US)}$	$e_{(US)}/e^*_{(US)}$	$e_{(US)}/y^{**}$
11. Pakistan						$gy^{**}=gy^*/gy^*(US)$		$e^*(US)=e(US)+(r^*-r^*(US))$		$y^{**}=y^*/y^*(US)$
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	4.4961	(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 from *International Financial Statistics Yearbook*, IMF.

Table C5-1 **Bangladesh:** Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + PRI = bop$, the rates of change in population and unemployment

Cost of capit	$HA_{r^*(i)}$	r^*-$HA_{r^*(i)}$	$v^*=r^*/(r^*-g_Y{}^*$	CC^*_{REAL}	$CC^*_{REAL(G)}$	$CC^*_{REAL(PRI)}$	$CC^*_{NOMINAL}$	$CC^*_{NOMI(G)}$	$CC^*_{NOMI(P)}$
6. Bangrac	max. endo. in	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,	$1/\lambda^*$	$1/\lambda_G{}^*$	$1/\lambda_{PRI}{}^*$	$\mathbf{i}_{actual}$	$\mathbf{i}_{endoge.}$	difference	Δd	s_{PRI}-i_{PRI}	bop
6. Bangrac	in equilibriu	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
Unemployme	**n**	$n_{EQUI(G)}$-n	$n_{EQUI(PRI)}$-n	n_{EQUI}-n	$n_{EQUI(G)}$-n_G	$n_{EQUI(PRI)}$-n_P	Unem.rate(act	$g_{CPI(actual)}$	Infla. rate
6. Bangrac	under attaining equilibrium			under the same wage rate by sector			actual; to population		
1990	0.0278	(0.0279)	0.0000	0.0000	0.0000	0.0000	(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 from *International Financial Statistics Yearbook*, IMF.

Chapter 11

Table C5-2 **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	$HA_{\beta^*(i)}$	$HA_{\beta^*(i)G}$	$HA_{\beta^*(i)PRI}$	$HA_{\Omega*(i)}$	$HA_{\Omega G*(iG)}$	$HA_{\Omega PRI*(iPRI)}$	$Widt_{\Omega(i)}$	$Width_{\Omega G(iG)}$	$Width_{\Omega P(iP)}$	$Wid/HA_{\Omega(i)}$
6. Bangradesh		G	PRI		G	PRI		G	PRI	
1990	0.4425	1.3539	0.5223	0.5900	(1.9606)	2.7256	0.0928	0.0169	0.5219	0.157
1991	0.4470	1.7059	0.5038	0.6257	(1.2071)	2.0983	0.0977	0.0092	0.4177	0.156
1992	0.4587	(47.0036)	0.4961	0.6449	(0.5207)	2.3681	0.0999	0.0008	0.4471	0.155
1993	0.4968	(0.0445)	0.5083	1.8444	(0.0261)	0.8192	0.3511	0.0012	0.0234	0.190
1994	0.4851	0.4848	0.4852	1.4883	0.4884	12.1074	0.3070	0.1138	2.0636	0.206
1995	0.4915	0.6353	0.4783	1.4179	1.0516	3.3719	0.2805	0.2044	0.5933	0.198
1996	0.4964	0.7352	0.4680	1.2752	1.4508	1.6552	0.2641	0.2681	0.3293	0.207
1997	0.4989	0.8047	0.4511	1.3337	1.9026	1.9919	0.2859	0.3500	0.4019	0.214
1998	0.5074	0.8242	0.4475	1.3847	2.4335	1.5706	0.2959	0.4427	0.3313	0.214
1999	0.5190	0.8489	0.4471	1.3721	2.5881	1.3806	0.2761	0.1774	0.2808	0.201
2000	0.5355	0.8665	0.4505	1.4985	3.1235	2.3471	0.2563	0.2368	0.3766	0.171
2001	0.5691	0.8691	0.4833	2.5726	6.4079	4.0550	0.3939	0.7428	0.5936	0.153
2002	0.5444	0.8531	0.4586	2.9967	9.6332	2.6952	0.4482	1.3288	0.4079	0.150
2003	0.5144	0.8500	0.4224	1.2623	3.8549	0.7652	0.2151	0.5391	0.0807	0.170
2004	0.5208	0.8515	0.4268	1.2665	3.9773	0.7739	0.2125	0.5483	0.0813	0.168
2005	0.5304	0.8571	0.4352	1.2597	4.1162	0.7855	0.2073	0.5548	0.0822	0.165
2006	0.5333	0.8623	0.4337	1.3016	4.2618	0.7995	0.2089	0.5627	0.0832	0.160
2007	0.5325	0.8652	0.4290	1.2895	4.3632	0.7844	0.2035	0.5647	0.0821	0.158
2008	0.5281	0.8706	0.4211	1.2540	4.3679	0.7587	0.1959	0.5548	0.0802	0.156
2009	0.5251	0.8738	0.4146	1.2818	4.4656	0.7587	0.1967	0.5582	0.0802	0.153
Endogenous	α	δ_0	β^*	Ω	$g_A^*=i(1-\beta^*)$	$x=r^*/g_Y^*$	$r^*=\alpha/\Omega$	$r^*_G=\alpha_G/\Omega_G$	$r^*_{PRI}=\alpha_P/\Omega_P$	δ_0/α
6. Bangradesh						x=a/(i ḃ*)		G	PRI	
1990	0.1399	0.0391	0.4045	0.6895	0.0602	3.4221	0.2029	(0.2488)	0.1109	0.280
1991	0.1084	0.1276	0.4100	0.7279	0.0642	2.4322	0.1490	(0.4148)	0.0758	1.177
1992	0.1066	0.2010	0.4168	0.7646	0.0577	2.5865	0.1394	(0.8994)	0.0794	1.886
1993	0.1640	1.2656	0.6934	0.8051	0.0159	4.5677	0.2037	(14.9021)	0.1598	7.716
1994	0.1241	1.3928	0.6357	0.8035	0.0271	2.6280	0.1545	1.0685	0.0956	11.219
1995	0.1505	1.4126	0.6310	0.8014	0.0266	3.3082	0.1878	0.4412	0.1568	9.384
1996	0.1254	1.4312	0.5993	0.8407	0.0424	1.9771	0.1491	0.3850	0.1050	11.417
1997	0.0986	1.3237	0.6033	0.8731	0.0461	1.4068	0.1129	0.3286	0.0528	13.426
1998	0.0929	1.2119	0.6108	0.9090	0.0470	1.2590	0.1022	0.2497	0.0509	13.048
1999	0.0925	1.1034	0.6077	0.9558	0.0500	1.1932	0.0968	0.2155	0.0478	11.929
2000	0.1072	0.9804	0.6309	1.0106	0.0335	1.8727	0.1061	0.1751	0.0721	9.144
2001	0.1888	0.9565	0.7635	1.0523	0.0099	5.9224	0.1794	0.0436	0.2491	5.066
2002	0.1560	1.0071	0.7832	0.9910	0.0072	6.0140	0.1574	0.0320	0.2223	6.456
2003	0.0925	1.1626	0.5858	0.9452	0.0452	1.4451	0.0978	0.1260	0.0829	12.572
2004	0.0930	1.0875	0.5867	0.9698	0.0482	1.3592	0.0959	0.1145	0.0857	11.695
2005	0.0943	0.9797	0.5856	1.0071	0.0563	1.1840	0.0936	0.1089	0.0851	10.393
2006	0.0951	0.9513	0.5936	1.0186	0.0490	1.3290	0.0934	0.1042	0.0871	10.000
2007	0.0956	0.9596	0.5913	1.0150	0.0486	1.3607	0.0942	0.1022	0.0893	10.039
2008	0.0954	1.0060	0.5844	0.9979	0.0496	1.3685	0.0956	0.1090	0.0872	10.547
2009	0.0948	1.0362	0.5894	0.9870	0.0415	1.5917	0.0960	0.1104	0.0867	10.930
Neutrality c	$m_K=M/K$	$m=M/Y$	$m_\Pi=M/\Pi$	$r_{(DEBT)}-r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)})/gy^{**}$	$r^*-r^*_{(US)}$	$e^*_{(US)}$	$e_{(US)}/e^*_{(US)}$	$e_{(US)}/y^{**}$
6. Bangradesh					gy**=gy*/gy*(US)		e*(US)=e(US)+(r*-r*(US))		y**=y*/y*(US)	
1990	0.3727	0.2570	1.8363	(0.0429)	0.7884	3.07	0.1292	35.92	0.9964	37.654
1991	0.3602	0.2622	2.4177	0.0102	1.0685	2.48	0.0817	38.66	0.9979	29.175
1992	0.3513	0.2686	2.5198	0.0106	1.0760	2.39	0.0660	39.07	0.9983	22.457
1993	0.3631	0.2923	1.7824	(0.0537)	0.7363	21.61	0.1372	39.99	0.9966	60.423
1994	0.3930	0.3158	2.5440	(0.0095)	0.9385	19.61	0.0897	40.34	0.9978	21.606
1995	0.4012	0.3215	2.1359	(0.0478)	0.7453	15.23	0.1293	40.88	0.9968	8.728
1996	0.3884	0.3265	2.6046	(0.0091)	0.9388	12.73	0.0929	42.54	0.9978	0.003
1997	0.3696	0.3227	3.2729	0.0271	1.2398	16.02	0.0608	45.51	0.9987	1.608
1998	0.3570	0.3245	3.4934	0.0378	1.3701	21.57	0.0519	48.55	0.9989	9.722
1999	0.3571	0.3413	3.6900	0.0445	1.4600	27.33	0.0476	51.05	0.9991	13.020
2000	0.3877	0.3918	3.6541	0.0489	1.4609	47.38	0.0560	54.06	0.9990	39.766
2001	0.4270	0.4493	2.3799	(0.0211)	0.8824	112.60	0.1202	57.12	0.9979	159.503
2002	0.4675	0.4633	2.9703	0.0026	1.0165	113.96	0.0809	57.98	0.9986	181.445
2003	0.4677	0.4421	4.7803	0.0622	1.6353	18.35	0.0143	58.80	0.9998	0.703
2004	0.4786	0.4642	4.9918	0.0516	1.5384	20.51	0.0089	60.75	0.9999	2.577
2005	0.4850	0.4885	5.1818	0.0464	1.4957	17.88	(0.0031)	66.21	1.0000	6.741
2006	0.5231	0.5328	5.6006	0.0599	1.6413	31.85	0.0107	69.08	0.9998	14.335
2007	0.5287	0.5366	5.6144	0.0658	1.6992	37.38	0.0255	68.60	0.9996	11.297
2008	0.5487	0.5476	5.7404	0.0682	1.7136	29.00	0.0213	68.94	0.9997	4.310
2009	0.5943	0.5866	6.1882	0.0500	1.5201	27.08	0.0277	69.29	0.9996	4.211

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

Table C6-1 **Indonesia:** Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + PRI = bop$, the rates of change in population and unemployment

Cost of capit	$HA_{r^*(i)}$	$r^*-HA_{r^*(i)}$	$v^*=r^*/(r^*-g_V{}^*)$	CC^*_{REAL}	$CC^*_{REAL(G)}$	$CC^*_{REAL(PRI)}$	$CC^*_{NOMINAL}$	$CC^*_{NOMI(G)}$	$CC^*_{NOMI(P)}$
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	2.3124	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,	$1/\lambda^*$	$1/\lambda_G{}^*$	$1/\lambda_{PRI}{}^*$	$\mathbf{i_{actual}}$	$\mathbf{i_{endoge.}}$	difference	Δd	$s_{PRI}-i_{PRI}$	bop
9. Indones	in equilibriu	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)
Unemployme	**n**	$n_{EQUI(G)}-n$	$n_{EQUI(PRI)}-n$	$n_{EQUI}-n$	$n_{EQUI(G)}-n_G$	$n_{EQUI(PRI)}-n_P$	Unem.rate(act	$g_{CPI(actual)}$	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	0.0000	(0.0113)	0.0793	0.4928
1991	0.0106	0.0000	(0.1006)	(0.1006)	0.0213	(0.1052)	(0.0117)	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 from *International Financial Statistics Yearbook*, IMF.

Table C6-2 **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	$HA_{\beta^*(i)}$	$HA_{\beta^*(i)G}$	$HA_{\beta^*(i)PRI}$	$HA_{\Omega*(i)}$	$HA_{\Omega G*(iG)}$	$HA_{\Omega PRI*(iPRI)}$	$Widt_{\Omega(i)}$	$Width_{\Omega G(iG)}$	$Width_{\Omega P(iP)}$	$Wid/HA_{\Omega(i)}$
9. Indonesia		G	PRI		G	PRI		G	PRI	
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	0.3690	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	$g_A^*=i(1-\beta^*)$	$x=r^*/g_Y^*$	$r^*=\alpha/\Omega$	$r^*_G=\alpha_G/\Omega_G$	$r^*_{PRI}=\alpha_P/\Omega_P$	δ_0/α
9. Indonesia						x=a/(i - b*)		G	PRI	
1990	0.4327	(0.2563)	0.4459	0.7612	0.1890	2.8451	0.5684	0.2422	0.7168	(0.592)
1991	0.4111	(0.3901)	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	0.2366	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	$m_K=M/K$	$m=M/Y$	$m_\Pi=M/\Pi$	$r_{(DEBT)}-r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)}/gy^{**}$	$r^*-r^*_{(US)}$	$e^*_{(US)}$	$e_{(US)}/e^*_{(US)}$	$e_{(US)}/y^{**}$
9. Indonesia					gy**=gy*/gy*(US)		e*(US)=e(US)+(r*-r*(US))		y**=y*/y*(US)	
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)	0.5591	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	1949	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 from *International Financial Statistics Yearbook*, IMF.

Table C7-1 **Philippines:** Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + PRI = bop$, the rates of change in population and unemployment

Cost of capit	$HA_{r^*(i)}$	$r^*-HA_{r^*(i)}$	$v^*=r^*/(r^*-g_{V^*})$	CC^*_{REAL}	$CC^*_{REAL(G)}$	$CC^*_{REAL(PRI)}$	$CC^*_{NOMINAL}$	$CC^*_{NOMI(G)}$	$CC^*_{NOMI(P)}$
13. Philipp	max. endo. in	REAL	to bubbles	*REAL*	G	PRI	*NOMINAL*	G	PRI
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	0.0414	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,	$1/\lambda^*$	$1/\lambda_G{}^*$	$1/\lambda_{PRI}{}^*$	$\mathbf{i_{actual}}$	$\mathbf{i_{endoge.}}$	difference	Δd	$s_{PRI}-i_{PRI}$	bop
13. Philipp	in equilibriu	G	PRI	actual	endogenous		G	PRI	TOTAL
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**	$n_{EQUI(G)}-n$	$n_{EQUI(PRI)}-n$	$n_{EQUI}-n$	$n_{EQUI(G)}-n_G$	$n_{EQUI(PRI)}-n_P$	Unem.rate(act	$g_{CPI(actual)}$	Infla. rate
13. Philipp	under attaining equilibrium			under the same wage rate by sector			actual; to population		
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 from *International Financial Statistics Yearbook*, IMF.

Table C7-2 **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	$HA_{\beta^*(i)}$	$HA_{\beta^*(i)G}$	$HA_{\beta^*(i)PRI}$	$HA_{\Omega*(i)}$	$HA_{\Omega G*(iG)}$	$HA_{\Omega PRI*(iPRI)}$	$Widt_{\Omega(i)}$	$Width_{\Omega G(iG)}$	$Width_{\Omega P(iP)}$	$Wid/HA_{\Omega(i)}$
13. Philippines		G	PRI		G	PRI		G	PRI	
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	$g_A^*=i(1-\beta^*)$	$x=r^*/g_Y^*$	$r^*=\alpha/\Omega$	$r^*_G=\alpha_G/\Omega_G$	$r^*_{PRI}=\alpha_P/\Omega_P$	δ_0/α
13. Philippines						x=a/(i b*)		G	PRI	
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	0.0926	(3.2361)	0.4923	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	$m_K=M/K$	$m=M/Y$	$m_\Pi=M/\Pi$	$r_{(DEBT)}-r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)}/gy^{**}$	$r^*-r^*_{(US)}$	$e^*_{(US)}$	$e_{(US)}/e^*_{(US)}$	$e_{(US)}/y^{**}$
13. Philippines						gy**=gy*/gy*(US)		e*(US)=e(US)+(r*-r*(US))		y**=y*/y*(US)
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 from *International Financial Statistics Yearbook*, IMF.

Table C8-1 **Sri Lanka:** Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + PRI = bop$, the rates of change in population and unemployment

Cost of capit	$HA_{r^*(i)}$	$r^*-HA_{r^*(i)}$	$v^*=r^*/(r^*-g_Y{}^*)$	CC^*_{REAL}	$CC^*_{REAL(G)}$	$CC^*_{REAL(PRI)}$	$CC^*_{NOMINAL}$	$CC^*_{NOMI(G)}$	$CC^*_{NOMI(P)}$
15. Sri Lar	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,	$1/\lambda^*$	$1/\lambda_G{}^*$	$1/\lambda_{PRI}{}^*$	$\mathbf{i_{actual}}$	$\mathbf{i_{endoge.}}$	difference	Δd	$s_{PRI}-i_{PRI}$	bop
15. Sri Lar	in equilibriur	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)
Unemployme	**n**	$n_{EQUI(G)}-n$	$n_{EQUI(PRI)}-n$	$n_{EQUI}-n$	$n_{EQUI(G)}-n_G$	$n_{EQUI(PRI)}-n_P$	Unem.rate(act	$g_{CPI(actual)}$	Infla. rate
15. Sri Lar	under attaining equilibrium			under the same wage rate by sector			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 from *International Financial Statistics Yearbook*, IMF.

Chapter 11

Table C8-2 **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	$HA_{\beta^*(i)}$	$HA_{\beta^*(i)G}$	$HA_{\beta^*(i)PRI}$	$HA_{\Omega*(i)}$	$HA_{\Omega G*(iG)}$	$HA_{\Omega PRI*(iPRI)}$	$Widt_{\Omega(i)}$	$Width_{\Omega G(iG)}$	$Width_{\Omega P(iP)}$	$Wid/HA_{\Omega(i)}$
15. Sri Lanka		G	PRI		G	PRI		G	PRI	
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	$g_A^*=i(1-\beta^*)$	$x=r^*/g_Y^*$	$r^*=\alpha/\Omega$	$r^*_G=\alpha_G/\Omega_G$	$r^*_{PRI}=\alpha_P/\Omega_P$	δ_0/α
15. Sri Lanka						x=a/(i ḃ*)		G	PRI	
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	0.4376	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	$m_K=M/K$	$m=M/Y$	$m_\Pi=M/\Pi$	$r_{(DEBT)}-r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)}/gy^{**}$	$r^*-r^*_{(US)}$	$e^*_{(US)}$	$e_{(US)}/e^*_{(US)}$	$e_{(US)}/y^{**}$
15. Sri Lanka					gy**=gy*/gy*(US)		e*(US)=e(US)+(r*-r*(US))		y**=y*/y*(US)	
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 from *International Financial Statistics Yearbook*, IMF.

Table C9-1 **Vietnam:** Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + PRI = bop$, the rates of change in population and unemployment

Cost of capit	$HA_{r^*(i)}$	$r^*-HA_{r^*(i)}$	$v^*=r^*/(r^*-g_Y{}^*)$	CC^*_{REAL}	$CC^*_{REAL(G)}$	$CC^*_{REAL(PRI)}$	$CC^*_{NOMINAL}$	$CC^*_{NOMI(G)}$	$CC^*_{NOMI(P)}$
17. Vietna	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,	$1/\lambda^*$	$1/\lambda_G{}^*$	$1/\lambda_{PRI}{}^*$	$\mathbf{i_{actual}}$	$\mathbf{i_{endoge.}}$	difference	Δd	$s_{PRI}-i_{PRI}$	bop
17. Vietna	in equilibriu	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)
Unemployme	**n**	$n_{EQUI(G)}-n$	$n_{EQUI(PRI)}-n$	$n_{EQUI}-n$	$n_{EQUI(G)}-n_G$	$n_{EQUI(PRI)}-n_P$	Unem.rate(act	$g_{CPI(actual)}$	Infla. rate
17. Vietna	under attaining equilibrium			under the same wage rate by sector			actual; to population		
1990	0.0225	0.0000	(0.0226)	0.0000	0.0000	0.0000	0.0000	0.0000	0.5207
1991	0.0233	0.0000	0.0000	0.0000	0.1773	(0.0222)	0.0000	0.0000	0.2781
1992	0.0242	0.0000	0.0000	0.0000	0.0755	(0.0077)	0.0000	0.0000	0.2917
1993	0.0233	0.0000	0.0000	0.0000	(0.0702)	0.0065	0.0000	0.0000	0.2714
1994	0.0208	0.0000	0.0000	0.0000	(0.1260)	0.0126	0.0000	0.0000	0.2272
1995	0.0113	0.0000	0.0000	(0.0123)	0.0549	(0.0063)	0.0000	0.0705	0.2212
1996	0.0169	0.0000	0.0000	(0.0297)	(0.0017)	0.0002	0.0000	0.0575	0.2126
1997	0.0157	0.0000	(0.0158)	0.0000	(0.0284)	(0.0127)	0.0000	0.0317	0.1285
1998	0.0148	0.0000	(0.0428)	0.0000	0.0261	(0.0457)	0.0000	0.0724	0.1282
1999	0.0143	0.0000	0.0000	0.0000	0.1014	(0.0109)	0.0000	0.0409	0.1105
2000	0.0145	0.0000	0.0000	0.0000	0.0302	(0.0029)	0.0000	(0.0167)	0.0894
2001	0.0148	0.0000	0.0000	0.0000	(0.0046)	0.0004	0.0000	(0.0040)	0.0782
2002	0.0147	0.0000	0.0000	0.0000	0.0168	(0.0016)	0.0000	0.0382	0.0765
2003	0.0147	0.0000	0.0000	0.0000	(0.0002)	0.0000	0.0000	0.0309	0.0822
2004	0.0145	0.0000	0.0000	0.0000	(0.0245)	0.0022	0.0000	0.0788	0.0847
2005	0.0027	0.0000	0.0000	0.0000	0.0164	(0.0015)	0.0000	0.0826	0.1076
2006	0.0123	0.0000	0.0000	0.0000	0.0168	(0.0015)	0.0000	0.0740	0.1004
2007	0.0119	0.0000	0.0000	0.0000	0.0118	(0.0011)	0.0000	0.0829	0.1039
2008	0.0115	0.0000	0.0000	0.0000	0.0177	(0.0016)	0.0000	0.2313	0.1502
2009	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 from *International Financial Statistics Yearbook*, IMF.

Chapter 11

Table C9-2 **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	$HA_{\beta^*(i)}$	$HA_{\beta^*(i)G}$	$HA_{\beta^*(i)PRI}$	$HA_{\Omega^*(i)}$	$HA_{\Omega G^*(iG)}$	$HA_{\Omega PRI^*(iPRI)}$	$Widt_{\Omega(i)}$	$Width_{\Omega G(iG)}$	$Width_{\Omega P(iP)}$	$Wid/HA_{\Omega(i)}$
17. Vietnam		G	PRI		G	PRI		G	PRI	
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	0.5200	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	$g_A^*=i(1-\beta^*)$	$x=r^*/g_Y^*$	$r^*=\alpha/\Omega$	$r^*_G=\alpha_G/\Omega_G$	$r^*_{PRI}=\alpha_P/\Omega_P$	δ_0/α
17. Vietnam						x=a/(i − b*)		G	PRI	
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	(0.7500)	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	$m_K=M/K$	$m=M/Y$	$m_\Pi=M/\Pi$	$r_{(DEBT)}-r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)}/gy^{**}$	$r^*-r^*_{(US)}$	$e^*_{(US)}$	$e_{(US)}/e^*_{(US)}$	$e_{(US)}/y^{**}$
17. Vietnam						gy**=gy*/gy*(US)		e*(US)=e(US)+(r*-r*(US))		y**=y*/y*(US)
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	0.2472	2.1223	0.0241	1.0738	384.91	0.2526	10565	1.0000	115905
1993	0.4446	0.2236	2.1224	0.0905	1.4321	774.01	0.1430	10843	1.0000	153725
1994	0.3589	0.2178	2.1153	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 from *International Financial Statistics Yearbook*, IMF.

Table C10-1 **Mexico:** Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + PRI = bop$, the rates of change in population and unemployment

Cost of capit.	$HA_{r^*(i)}$	$r^*-HA_{r^*(i)}$	$v^*=r^*/(r^*-g_V{}^*)$	CC^*_{REAL}	$CC^*_{REAL(G)}$	$CC^*_{REAL(PRI)}$	$CC^*_{NOMINAL}$	$CC^*_{NOMI(G)}$	$CC^*_{NOMI(P)}$
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,	$1/\lambda^*$	$1/\lambda_G{}^*$	$1/\lambda_{PRI}{}^*$	$\mathbf{i_{actual}}$	$\mathbf{i_{endoge.}}$	difference	Δd	$s_{PRI}-i_{PRI}$	bop
5. Mexico	in equilibriu	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)
Unemployme	**n**	$n_{EQUI(G)}-n$	$n_{EQUI(PRI)}-n$	$n_{EQUI}-n$	$n_{EQUI(G)}-n_G$	$n_{EQUI(PRI)}-n_P$	Unem.rate(act	$g_{CPI(actual)}$	Infla. rate
5. Mexico	under attaining equilibrium			under the same wage rate by sector			actual; to population		
1990	0.0192	0.0000	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	0.0390
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 from *International Financial Statistics Yearbook*, IMF.

Chapter 11

Table C10-2 **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	$HA_{\beta^*(i)}$	$HA_{\beta^*(i)G}$	$HA_{\beta^*(i)PRI}$	$HA_{\Omega*(i)}$	$HA_{\Omega G*(iG)}$	$HA_{\Omega PRI*(iPRI)}$	$Widt_{\Omega(i)}$	$Width_{\Omega G(iG)}$	$Width_{\Omega P(iP)}$	$Wid/HA_{\Omega(i)}$
5. Mexico		G	PRI		G	PRI		G	PRI	
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	$g_A^*=i(1-\beta^*)$	$x=r^*/g_Y^*$	$r^*=\alpha/\Omega$	$r^*_G=\alpha_G/\Omega_G$	$r^*_{PRI}=\alpha_P/\Omega_P$	δ_0/α
5. Mexico						x=a/(i -b*)		G	PRI	
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	0.0560	1.1876	0.0964	0.1510	0.0832	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	$m_K=M/K$	$m=M/Y$	$m_\Pi=M/\Pi$	$r_{(DEBT)}-r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)}/gy^{**}$	$r^*-r^*_{(US)}$	$e^*_{(US)}$	$e_{(US)}/e^*_{(US)}$	$e_{(US)}/y^{**}$
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	0.4155	4.0320	0.4572	5.9273	0.4874	0.0263	3.132	0.9916	1.2626
1994	0.3782	0.4332	4.2053	0.4351	5.8370	1.1506	0.0251	5.350	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	(0.0006)	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	1.1796	(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 from *International Financial Statistics Yearbook*, IMF.

Table C11-1 **Argentina:** Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + PRI = bop$, the rates of change in population and unemployment

Cost of capit	$HA_{r^*(i)}$	$r^*-HA_{r^*(i)}$	$v^*=r^*/(r^*-g_{Y^*}$	CC^*_{REAL}	$CC^*_{REAL(G)}$	$CC^*_{REAL(PRI)}$	$CC^*_{NOMINAL}$	$CC^*_{NOMI(G)}$	$CC^*_{NOMI(P)}$
1. Argentin	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,	$1/\lambda^*$	$1/\lambda_G{}^*$	$1/\lambda_{PRI}{}^*$	$\mathbf{i}_{actual}$	$\mathbf{i}_{endoge.}$	difference	Δd	$s_{PRI}-i_{PRI}$	bop
1. Argentin	in equilibriun	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
Unemployme	**n**	$n_{EQUI(G)}-n$	$n_{EQUI(PRI)}-n$	$n_{EQUI}-n$	$n_{EQUI(G)}-n_G$	$n_{EQUI(PRI)}-n_P$	Unem.rate(act	$g_{CPI(actual)}$	Infla. rate
1. Argentin	under attaining equilibrium			under the same wage rate by sector			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	(0.1012)	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 from *International Financial Statistics Yearbook*, IMF.

Chapter 11

Table C11-2 **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	$HA_{\beta^*(i)}$	$HA_{\beta^*(i)G}$	$HA_{\beta^*(i)PRI}$	$HA_{\Omega*(i)}$	$HA_{\Omega G*(iG)}$	$HA_{\Omega PRI*(iPRI)}$	$Widt_{\Omega(i)}$	$Width_{\Omega G(iG)}$	$Width_{\Omega P(iP)}$	$Wid/HA_{\Omega(i)}$
1. Argentina		G	PRI		G	PRI		G	PRI	
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_0	β^*	Ω	$g_A^*=i(1-\beta^*)$	$x=r^*/g_Y^*$	$r^*=\alpha/\Omega$	$r^*_G=\alpha_G/\Omega_G$	$r^*_{PRI}=\alpha_P/\Omega_P$	δ_0/α
1. Argentina						$x=\alpha/(i\ \beta^*)$		G	PRI	
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	0.3994	0.0581	3.5408	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	$m_K=M/K$	$m=M/Y$	$m_\Pi=M/\Pi$	$r_{(DEBT)}-r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)}/gy^{**}$	$r^*-r^*_{(US)}$	$e^*_{(US)}$	$e_{(US)}/e^*_{(US)}$	$e_{(US)}/y^{**}$
1. Argentina						$gy^{**}=gy^*/gy^*(US)$		$e^*(US)=e(US)+(r^*-r^*(US))$		$y^{**}=y^*/y^*(US)$
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	0.3288
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 from *International Financial Statistics Yearbook*, IMF.

Table C12-1 **Bolivia:** Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + PRI = bop$, the rates of change in population and unemployment

Cost of capit.	$HA_{r^*(i)}$	r^*-$HA_{r^*(i)}$	$v^*=r^*/(r^*-g_Y{}^*$	CC^*_{REAL}	$CC^*_{REAL(G)}$	$CC^*_{REAL(PRI)}$	$CC^*_{NOMINAL}$	$CC^*_{NOMI(G)}$	$CC^*_{NOMI(P)}$
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	(0.3399)	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,	$1/\lambda^*$	$1/\lambda_G{}^*$	$1/\lambda_{PRI}{}^*$	$\mathbf{i_{actual}}$	$\mathbf{i_{endoge.}}$	difference	Δd	s_{PRI}-i_{PRI}	bop
2. Bolivia	in equilibriu	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!
Unemployme	**n**	$n_{EQUI(G)}$-n	$n_{EQUI(PRI)}$-n	n_{EQUI}-n	$n_{EQUI(G)}$-n_G	$n_{EQUI(PRI)}$-n_P	Unem.rate(act	$g_{CPI(actual)}$	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 from *International Financial Statistics Yearbook*, IMF.

Chapter 11

Table C12-2 **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	$HA_{\beta^*(i)}$	$HA_{\beta^*(i)G}$	$HA_{\beta^*(i)PRI}$	$HA_{\Omega*(i)}$	$HA_{\Omega G*(iG)}$	$HA_{\Omega PRI*(iPRI)}$	$Widt_{\Omega(i)}$	$Width_{\Omega G(iG)}$	$Width_{\Omega P(iP)}$	$Wid/HA_{\Omega(i)}$
2. Bolivia		G	PRI		G	PRI		G	PRI	
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	$g_A^*=i(1-\beta^*)$	$x=r^*/g_Y^*$	$r^*=\alpha/\Omega$	$r^*_G=\alpha_G/\Omega_G$	$r^*_{PRI}=\alpha_P/\Omega_P$	δ_0/α
2. Bolivia						$x=\alpha/(i\ \beta^*)$		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	(10.599)
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	$m_K=M/K$	$m=M/Y$	$m_\Pi=M/\Pi$	$r_{(DEBT)}-r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)}/gy^{**}$	$r^*-r^*_{(US)}$	$e^*_{(US)}$	$e_{(US)}/e^*_{(US)}$	$e_{(US)}/y^{**}$
2. Bolivia						$gy^{**}=gy^*/gy^*(US)$		$e^*(US)=e(US)+(r^*-r^*(US))$		$y^{**}=y^*/y^*(US)$
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 from *International Financial Statistics Yearbook*, IMF.

Table C13-1 **Chile:** Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + PRI = bop$, the rates of change in population and unemployment

Cost of capit	$HA_{r^*(i)}$	$r^*-HA_{r^*(i)}$	$v^*=r^*/(r^*-g_Y{}^*$	CC^*_{REAL}	$CC^*_{REAL(G)}$	$CC^*_{REAL(PRI}$	$CC^*_{NOMINAL}$	$CC^*_{NOMI(G)}$	$CC^*_{NOMI(P)}$
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	2.3920	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,	$1/\lambda^*$	$1/\lambda_G{}^*$	$1/\lambda_{PRI}{}^*$	$\mathbf{i_{actual}}$	$\mathbf{i_{endoge.}}$	difference	Δd	$s_{PRI}-i_{PRI}$	bop
4. Chile	in equilibriu	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)	(0.0215)
1996	27.54	55.56	23.47	0.1579	0.1699	(0.0120)	0.0252	(0.0850)	(0.0598)
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)	(0.0162)	0.0069	(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**	$n_{EQUI(G)}-n$	$n_{EQUI(PRI)}-n$	$n_{EQUI}-n$	$n_{EQUI(G)}-n_G$	$n_{EQUI(PRI)}-n_P$	Unem.rate(act	$g_{CPI(actual)}$	Infla. rate
4. Chile	under attaining equilibrium			under the same wage rate by sector			actual; to population		
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 from *International Financial Statistics Yearbook*, IMF.

Table C13-2 **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	$HA_{\beta^*(i)}$	$HA_{\beta^*(i)G}$	$HA_{\beta^*(i)PRI}$	$HA_{\Omega*(i)}$	$HA_{\Omega G*(iG)}$	$HA_{\Omega PRI*(iPRI)}$	$Widt_{\Omega(i)}$	$Width_{\Omega G(iG)}$	$Width_{\Omega P(iP)}$	$Wid/HA_{\Omega(i)}$
4. Chile		G	PRI		G	PRI		G	PRI	
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_0	β^*	Ω	$g_A^*=i(1-\beta^*)$	$x=r^*/g_Y^*$	$r^*=\alpha/\Omega$	$r^*_G=\alpha_G/\Omega_G$	$r^*_{PRI}=\alpha_P/\Omega_P$	δ_0/α
4. Chile						$x=\alpha/(i\ \beta^*)$		G	PRI	
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	0.7785	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	$m_K=M/K$	$m=M/Y$	$m_\Pi=M/\Pi$	$r_{(DEBT)}-r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)}/gy^{**}$	$r^*-r^*_{(US)}$	$e^*_{(US)}$	$e_{(US)}/e^*_{(US)}$	$e_{(US)}/y^{**}$
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 from *International Financial Statistics Yearbook*, IMF.

Table C14-1 **Columbia:** Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + PRI = bop$, the rates of change in population and unemployment

Cost of capit	$HA_{r^*(i)}$	r^*-$HA_{r^*(i)}$	$v^*=r^*/(r^*-g_Y{}^*)$	CC^*_{REAL}	$CC^*_{REAL(G)}$	$CC^*_{REAL(PRI)}$	$CC^*_{NOMINAL}$	$CC^*_{NOMI(G)}$	$CC^*_{NOMI(P)}$
5. Colombi	max. endo. in	REAL	to bubbles	*REAL*	G	PRI	*NOMINAL*	G	PRI
1990	0.4329	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	0.0230	2.9096	0.0079	0.0003	0.0143	0.0516	0.0044	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,	$1/\lambda^*$	$1/\lambda_G{}^*$	$1/\lambda_{PRI}{}^*$	$\mathbf{i_{actual}}$	$\mathbf{i_{endoge.}}$	difference	Δd	s_{PRI}-i_{PRI}	bop
5. Colombi	in equilibriu	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	0.0112
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
Unemployme	**n**	$n_{EQUI(G)}$-n	$n_{EQUI(PRI)}$-n	n_{EQUI}-n	$n_{EQUI(G)}$-n_G	$n_{EQUI(PRI)}$-n_P	Unem.rate(act	$g_{CPI(actual)}$	Infla. rate
5. Colombi	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	0.0163	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 from *International Financial Statistics Yearbook*, IMF.

Table C14-2 **Columbia:** 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	$HA_{\beta^*(i)}$	$HA_{\beta^*(i)G}$	$HA_{\beta^*(i)PRI}$	$HA_{\Omega*(i)}$	$HA_{\Omega G*(iG)}$	$HA_{\Omega PRI*(iPRI)}$	$Widt_{\Omega(i)}$	$Width_{\Omega G(iG)}$	$Width_{\Omega P(iP)}$	$Wid/HA_{\Omega(i)}$
5. Colombia		G	PRI		G	PRI		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	#NUM!	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	1.4258	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_0	β^*	Ω	$g_A^*=i(1-\beta^*)$	$x=r^*/g_Y^*$	$r^*=\alpha/\Omega$	$r^*_G=\alpha_G/\Omega_G$	$r^*_{PRI}=\alpha_P/\Omega_P$	δ_0/α
5. Colombia						$x=\alpha/(i\ \beta^*)$		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 o	$m_K=M/K$	$m=M/Y$	$m_\Pi=M/\Pi$	$r_{(DEBT)}-r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)}/gy^{**}$	$r^*-r^*_{(US)}$	$e^*_{(US)}$	$e_{(US)}/e^*_{(US)}$	$e_{(US)}/y^{**}$
5. Colombia						$gy^{**}=gy^*/gy^*(US)$		$e^*(US)=e(US)+(r^*-r^*(US))$		$y^{**}=y^*/y^*(US)$
1990	0.0858	0.0214	0.1732	(0.0432)	0.9127	31.71	0.4215	569.15	0.9993	17444
1991	0.7546	0.2010	1.7862	0.0486	1.1149	54.95	0.3551	707.22	0.9995	16089
1992	0.7278	0.2229	2.3638	0.0651	1.2115	39.24	0.2345	812.00	0.9997	13449
1993	0.6706	0.2395	2.5565	0.0957	1.3648	105.48	0.1958	917.53	0.9998	17944
1994	0.4530	0.2060	1.7456	0.1455	1.5605	72.98	0.1947	831.46	0.9998	12620
1995	0.5218	0.3309	2.9068	0.2477	2.3797	60.01	0.1210	987.77	0.9999	11868
1996	0.4258	0.3395	2.1842	0.2250	2.1539	91.72	0.1387	1005	0.9999	13235
1997	0.3932	0.3556	2.8346	0.2035	2.4668	79.61	0.0866	1294	0.9999	94102
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	3943
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 from *International Financial Statistics Yearbook*, IMF.

Table C15-1 **Paraguay:** Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + PRI = bop$, the rate rates of change in population and unemployment

Cost of capit.	$HA_{r^*(i)}$	$r^*-HA_{r^*(i)}$	$v^*=r^*/(r^*-g_V)^*$	CC^*_{REAL}	$CC^*_{REAL(G)}$	$CC^*_{REAL(PRI)}$	$CC^*_{NOMINAL}$	$CC^*_{NOMI(G)}$	$CC^*_{NOMI(P)}$
6. Paragua	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	(16.2646)
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,	$1/\lambda^*$	$1/\lambda_G^*$	$1/\lambda_{PRI}^*$	$\mathbf{i_{actual}}$	$\mathbf{i_{endoge.}}$	difference	Δd	$s_{PRI}-i_{PRI}$	bop
6. Paragua	in equilibriu	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	43.51	16.88	11.40	0.1409	0.1234	0.0175	(0.0306)	(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**	$n_{EQUI(G)}-n$	$n_{EQUI(PRI)}-n$	$n_{EQUI}-n$	$n_{EQUI(G)}-n_G$	$n_{EQUI(PRI)}-n_P$	Unem.rate(act	$g_{CPI(actual)}$	Infla. rate
6. Paragua	under attaining equilibrium			under the same wage rate by sector			actual; to population		
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	0.0405
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	0.0183	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 from *International Financial Statistics Yearbook*, IMF.

Table C15-2 **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	$HA_{\beta^*(i)}$	$HA_{\beta^*(i)G}$	$HA_{\beta^*(i)PRI}$	$HA_{\Omega*(i)}$	$HA_{\Omega G*(iG)}$	$HA_{\Omega PRI*(iPRI)}$	$Widt_{\Omega(i)}$	$Width_{\Omega G(iG)}$	$Width_{\Omega P(iP)}$	$Wid/HA_{\Omega(i)}$
6. Paraguay		G	PRI		G	PRI		G	PRI	
1990	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_0	β^*	Ω	$g_A^*=i(1-\beta^*)$	$x=r^*/g_Y^*$	$r^*=\alpha/\Omega$	$r^*_G=\alpha_G/\Omega_G$	$r^*_{PRI}=\alpha_P/\Omega_P$	δ_0/α
6. Paraguay						$x=\alpha/(i\ \beta^*)$		G	PRI	
1990	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 o	$m_K=M/K$	$m=M/Y$	$m_\Pi=M/\Pi$	$r_{(DEBT)}-r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)}/gy^{**}$	$r^*-r^*_{(US)}$	$e^*_{(US)}$	$e_{(US)}/e^*_{(US)}$	$e_{(US)}/y^{**}$
6. Paraguay						$gy^{**}=gy^*/gy^*(US)$		$e^*(US)=e(US)+(r^*-r^*(US))$		$y^{**}=y^*/y^*(US)$
1990	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	2.1699	(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 from *International Financial Statistics Yearbook*, IMF.

Table C16-1 **Peru:** Inflation rate, real rate of return, the valuation ratio, and the costs of capital, speed years, net investment, $\Delta d + PRI = bop$, the rates of change in population and unemployment

Cost of capit	$HA_{r^*(i)}$	$r^*-HA_{r^*(i)}$	$v^*=r^*/(r^*-g_Y{}^*)$	CC^*_{REAL}	$CC^*_{REAL(G)}$	$CC^*_{REAL(PRI)}$	$CC^*_{NOMINAL}$	$CC^*_{NOMI(G)}$	$CC^*_{NOMI(P)}$
7. Peru	max. endo. in	REAL	to bubbles	*REAL*	G	PRI	*NOMINAL*	G	PRI
1990	0.1878	0.0404	2.1703	0.0186	(0.0230)	(0.1039)	0.1052	(0.1222)	(0.6289)
1991	0.5029	0.0979	1.2558	0.0779	(0.0061)	0.9493	0.4784	(0.0572)	4.7933
1992	0.3772	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,	$1/\lambda^*$	$1/\lambda_G{}^*$	$1/\lambda_{PRI}{}^*$	$\mathbf{i_{actual}}$	$\mathbf{i_{endoge.}}$	difference	Δd	$s_{PRI}-i_{PRI}$	bop
7. Peru	in equilibriu	G	PRI	actual	endogenous		G	PRI	TOTAL
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
Unemployme	**n**	$n_{EQUI(G)}-n$	$n_{EQUI(PRI)}-n$	$n_{EQUI}-n$	$n_{EQUI(G)}-n_G$	$n_{EQUI(PRI)}-n_P$	Unem.rate(act	$g_{CPI(actual)}$	Infla. rate
7. Peru	under attaining equilibrium			under the same wage rate by sector			actual; to population		
1990	0.0218	0.0000	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	0.0699
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 from *International Financial Statistics Yearbook*, IMF.

Chapter 11

Table C16-2 **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	$HA_{\beta^*(i)}$	$HA_{\beta^*(i)G}$	$HA_{\beta^*(i)PRI}$	$HA_{\Omega*(i)}$	$HA_{\Omega G*(iG)}$	$HA_{\Omega PRI*(iPRI)}$	$Widt_{\Omega(i)}$	$Width_{\Omega G(iG)}$	$Width_{\Omega P(iP)}$	$Wid/HA_{\Omega(i)}$
7. Peru		G	PRI		G	PRI		G	PRI	
1990	0.3302	0.8865	(0.3509)	0.5280	9.8865	(0.2704)	0.1274	1.5334	#NUM!	0.241
1991	0.1932	0.6872	0.0256	0.2458	1.8873	0.0285	0.0736	0.3160	0.0226	0.299
1992	0.2207	0.6421	0.1079	0.2930	1.8839	0.1278	0.0835	0.3298	0.0509	0.285
1993	0.2552	0.6038	0.1732	0.3326	1.6271	0.2023	0.0719	0.2341	0.0527	0.216
1994	0.2859	0.4964	0.2460	0.4105	0.7809	0.3334	0.0956	0.0050	0.0841	0.233
1995	0.3460	0.5676	0.2971	0.5856	1.2087	0.4962	0.1645	0.2774	0.1473	0.281
1996	0.3890	0.5849	0.3451	0.6552	1.3583	0.5490	0.1269	0.2185	0.1123	0.194
1997	0.4210	0.6066	0.3881	0.6593	1.5729	0.6987	0.0102	0.2924	0.1591	0.015
1998	0.4656	0.5887	0.4460	0.7908	3.1689	0.8138	0.0232	0.4694	0.1506	0.029
1999	0.4940	0.5894	0.4764	0.8848	2.3792	0.7952	0.0040	0.3715	0.0115	0.004
2000	0.5226	0.5926	0.5045	1.2887	2.8261	0.8152	0.2058	0.4165	0.0638	0.160
2001	0.5337	0.6397	0.5117	1.3264	1.8068	1.3361	0.2097	0.2710	0.2108	0.158
2002	0.5447	0.6813	0.5149	1.3943	2.0802	1.3602	0.2141	0.2966	0.2101	0.154
2003	0.5530	0.6950	0.5206	1.4338	2.3098	1.3309	0.2119	0.3144	0.1997	0.148
2004	0.5478	0.7066	0.5107	1.4269	2.3599	1.3251	0.2095	0.3166	0.1977	0.147
2005	0.5523	0.7140	0.5124	1.4066	2.2626	1.3169	0.2020	0.2964	0.1921	0.144
2006	0.5794	0.7075	0.5395	1.2499	2.5464	0.6814	0.1752	0.3210	0.1517	0.140
2007	0.6034	0.7246	0.5739	1.2518	1.8818	1.1359	0.1701	0.2355	0.1579	0.136
2008	0.6117	0.7402	0.5816	1.3281	1.8359	1.2274	0.1791	0.2267	0.1694	0.135
2009	0.6184	0.7336	0.5911	1.5352	2.0886	1.4253	0.2030	0.2562	0.1922	0.132
Endogenous	α	δ_0	β^*	Ω	$g_A^*=i(1-\beta^*)$	$x=r^*/g_Y^*$	$r^*=\alpha/\Omega$	$r^*_G=\alpha_G/\Omega_G$	$r^*_{PRI}=\alpha_P/\Omega_P$	δ_0/α
7. Peru						$x=\alpha/(i\ \beta^*)$		G	PRI	
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	(0.3000)	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	$m_K=M/K$	$m=M/Y$	$m_\Pi=M/\Pi$	$r_{(DEBT)}-r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)}/gy^{**}$	$r^*-r^*_{(US)}$	$e^*_{(US)}$	$e_{(US)}/e^*_{(US)}$	$e_{(US)}/y^{**}$
7. Peru						$gy^{**}=gy^*/gy^*(US)$		$e^*(US)=e(US)+(r^*-r^*(US))$		$y^{**}=y^*/y^*(US)$
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	0.0696	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 from *International Financial Statistics Yearbook*, IMF.

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