

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 Adam Smith (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 between 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

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with a low inflation. And, these rotations co-exist with the current modern economics. Now, macroeconomics¹ independently is Mother as Chapter 1 clarified the base.

This chapter does not step into the above history. Instead, in conclusions at the end, the author refers to several articles related to technological progress policy in Singapore, China, and Mexico, after briefly reviewing ‘competitiveness 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 in 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, in Conclusions, 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 endogenous-

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).

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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

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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.

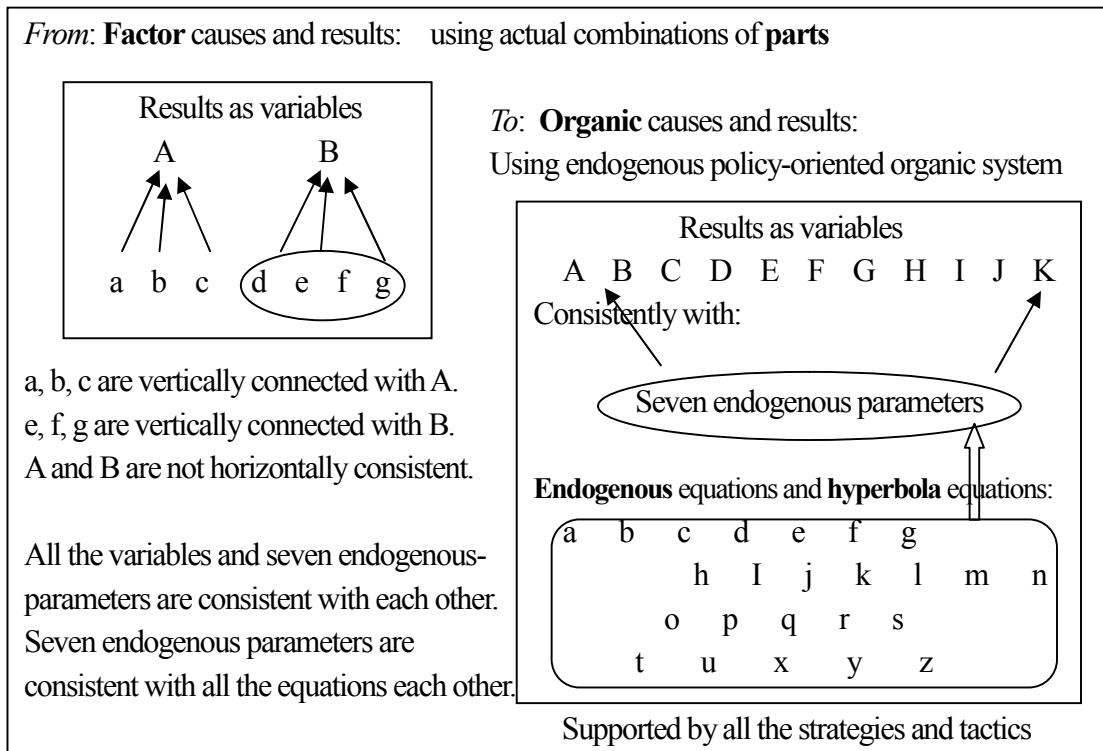
The endogenous system, contrarily, reverses the above concepts and definitions completely. This system does not distinguish estimate with measure since the system measures all the data after converting actual data to endogenous data. Measurement is most strict to the extreme and, differs from the concepts 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.

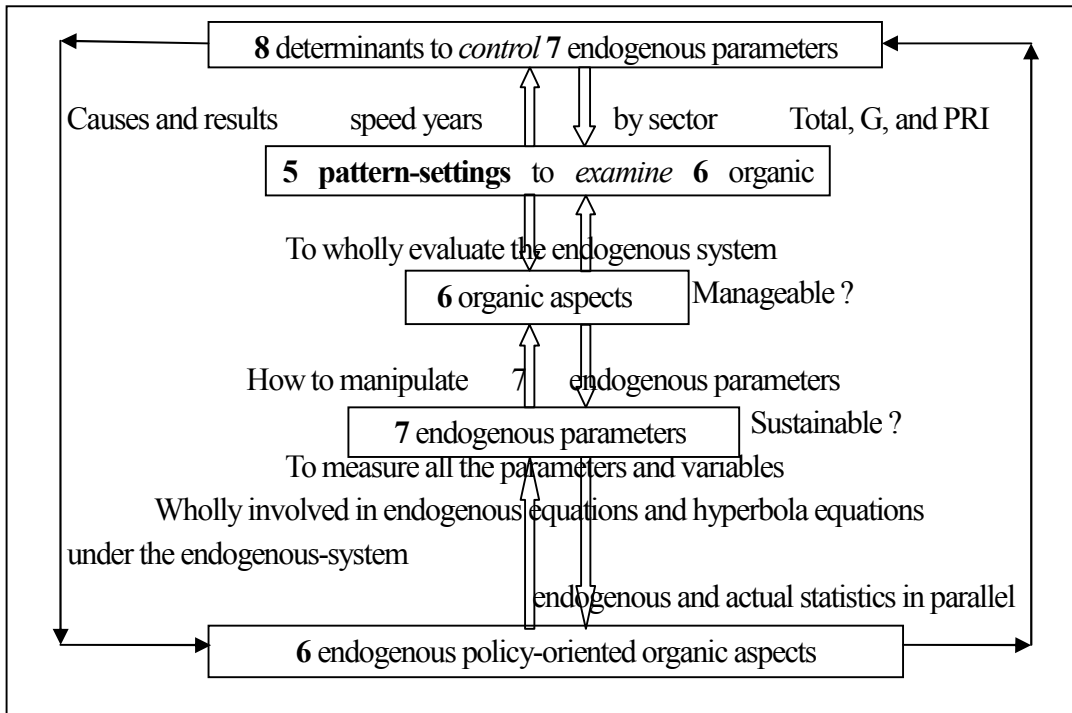
In order to solve this problem in six organic aspects, the author introduces two new devices; (1) ‘eight policy determinants’ to *control* seven endogenous parameters and (2) ‘five pattern-settings’ to *examine* six organic aspects. A series of BOXES are shown. Eight policy determinants are overlapped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

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



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 the *EES*). 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

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*^{*}: $\beta^* = \frac{\Omega^*(n(1-\alpha)+i(1+n))}{i(1-\alpha)+\Omega^* \cdot i(1+n)}$.

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. $\sigma = 1.0 = \frac{\Delta k/k}{(\Delta(\frac{r}{w}))/\frac{r}{w}}$ holds in the transitional path.

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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

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settling disequilibrium, where disequilibrium recovers simultaneously (with government cash flow-out by deficit). Disequilibrium does not actually. Even national bankruptcy holds at a close-to-disequilibrium and, before hitting actual disequilibrium. For example, countries had fallen into bankruptcies, as IMF tried to help recovering Argentina, Malaysia, and Korea.

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

³ The σ 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 σ 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.

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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 cons, often apart from right judgments and sacrificing the PRI sector.

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

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

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

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

Data source: KEWT 5.11-5 by sector, 1990-2009, whose original data are 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

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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 $bop = BOP/Y$ 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.

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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

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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 Usual: 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.

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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:

- | |
|--|
| <ol style="list-style-type: none">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: minus v^* included, towards urgent change in policies.4. Pattern the Lowermost: 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.

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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 Phili., Peru		Turkey		-0.05 to -0.099	Bangladesh Vietnam	Kazakhstan Philippines Sri Lanka			
0.10 to 0.149	Pakistan Bangladesh Sri Lanka Argentina Bolivia, Colum.	Mexico			0 to -0.049	Paraguay	Turkey Indonesia Chile	Pakistan Bolivia	Peru	
0.15 to 0.249	Chile Paraguay				0 to 0.049			Argentina Columbia	Ukraine	
0.25 to 0.4	Indonesia Vietnam			Ukraine	0.05 to 0.099 above 0.10					
1990 Endogenous Phelps coefficient, $x=\alpha/(i\beta)^*$					1990 Diminishing returns to capital coefficient, δ_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 Philippines	Argentina		5.0 to 9.99	Argentina Columbia	Indonesia Philippines, Sri Lanka Paraguay, Peru			
0.15 to 0.249			Mexico Pakistan Bangladesh		10 to 19.9			Kazakhstan Vietnam		
0.25 to 0.4		Chile	Indonesia Sri Lanka Vietnam Bolivia, Colum. Paraguay, Peru		20 to 29.9 above 30			Bangladesh Pakistan	Turkey 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 Paraguay	Sri Lanka Mexico			
0.10 to 0.149	Turkey Kazakhstan Pakistan Mexico Bolivia Peru	Bangladesh Sri Lanka Chile Columbia Paraguay	Ukraine Argentina		0 to -0.049		Turkey Bangladesh Vietnam Argentina Chile	Pakistan Columbia	Peru	
0.15 to 0.249		Philippines	Vietnam		0 to 0.049			Ukraine	Indonesia	
0.25 to 0.4		Indonesia			0.05 to 0.099 above 0.10				Kazakhstan	Philippines
2000 Endogenous Phelps coefficient, $x=\alpha/(i\beta)^*$					2000 Diminishing returns to capital coefficient, δ_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 Argentina	Ukraine Chile			0 to 4.99					
0.10 to 0.149		Bangladesh Vietnam Mexico Columbia	Pakistan Paraguay Peru		5.0 to 9.99	Pakistan Bolivia	Turkey			
0.15 to 0.249			Philippines Bolivia	Kazakhstan	10 to 19.9 20 to 29.9 above 30			Sri Lanka Ukraine Kazakhstan Argentina	Vietnam	Chile Bangladesh Indonesia Philippines Mexico, Columbia Paraguay, Peru
0.25 to 0.4			Indonesia	Turkey						

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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

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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 Rogoff (2009), Lall (2001), Kuruvilla et al. (2002), and Castillo, A. et al. (2005): Common vs. 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 $t, t+1, t+2, t+3, \dots, t+9, t+10, t+11$, 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 $t, t+1, t+2, t+3, \dots, t+9, t+10, t+11$, 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/

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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), iii), 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 competitiveness. 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

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to support and reinforce policies. 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 policies, 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

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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.

Conclusively, Chapter 11 arrives at **Axiom 1** of a constant capital-output ratio, $\Omega = \Omega^* = \Omega_0 = K/Y$. **Axiom 1** (see, Essence of Earth Endogenous System) stands for six nature-aspects under endogenous equilibrium. Chapters 11, 12, and 13 spread wholly from focusing. And, money-neutral is always responsible for six nature-aspects.

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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, 1990-2012.

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, $\Delta d + \text{PRI} = \text{bop}$, the rates of change in population and unemployment

Cost of capit:	$HA_{r^*}(t)$	$r^* - HA_{r^*}(t)$	$v^* = r^* / (r^* - g)^*$	CC^*_{REAL}	$CC^*_{REAL(G)}$	$CC^*_{REAL(PRI)}$	$CC^*_{NOMINAL}$	$CC^*_{NOMI(G)}$	$CC^*_{NOMI(P)}$
8. Turkey	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990	0.1429	(0.0157)	3.5371	(0.0044)	0.0037	(0.0217)	0.0359	(0.0379)	0.1473
1991	0.1296	0.0302	3.6480	0.0083	(0.0129)	0.0563	0.0438	(0.0996)	0.2272
1992	0.1707	0.0324	3.0531	0.0106	(0.0121)	0.0424	0.0665	(0.0935)	0.2394
1993	0.1801	0.0257	3.6418	0.0070	(0.0047)	0.0161	0.0565	(0.0378)	0.1291
1994	0.2293	0.0439	1.6469	0.0267	(0.0030)	0.0666	0.1659	(0.0394)	0.2789
1995	0.2461	0.0347	1.9018	0.0183	0.0022	0.0292	0.1477	0.0325	0.1841
1996	0.2377	0.0206	2.7042	0.0076	0.0022	0.0091	0.0955	0.0423	0.0985
1997	0.2325	0.0232	2.3437	0.0099	(0.0032)	0.0228	0.1091	(0.0698)	0.1793
1998	0.3416	0.0515	1.4889	0.0346	0.0005	0.1197	0.2640	0.0122	0.3451
1999	0.3429	0.0663	1.3217	0.0502	(0.0041)	0.6290	0.3096	(0.0717)	0.8768
2000	0.2799	0.0452	1.5264	0.0296	(0.0005)	0.1125	0.2130	(0.0081)	0.4762
2001	0.9960	(0.6473)	1.0580	(0.6118)	0.0137	0.9516	0.3296	(0.0710)	1.3453
2002	0.2880	0.0594	1.3183	0.0451	(0.0040)	1.4099	0.2635	(0.0645)	1.4461
2003	0.3066	0.0632	1.2883	0.0491	(0.0096)	(18.6812)	0.2871	(0.1805)	26.2256
2004	0.2652	0.0449	1.4435	0.0311	(0.0054)	2.7099	0.2148	(0.0814)	5.1518
2005	0.2297	0.0372	1.5575	0.0239	(0.0049)	0.4528	0.1714	(0.0622)	1.6849
2006	0.1873	0.0263	1.9956	0.0132	(0.0022)	0.0784	0.1070	(0.0237)	0.5104
2007	0.1772	0.0277	1.8436	0.0150	(0.0016)	0.0632	0.1111	(0.0141)	0.4090
2008	0.1408	0.0214	2.3723	0.0090	(0.0030)	0.0372	0.0684	(0.0290)	0.2384
2009	0.1465	0.0602	1.2620	0.0477	(0.0105)	0.7156	0.1638	(0.0728)	0.6537
2010	0.1657	0.0333	1.6123	0.0206	(0.0256)	0.0681	0.1234	(0.0869)	0.5171
2011	0.1239	0.0370	1.5257	0.0243	(0.0048)	0.3064	0.1055	(0.0474)	0.3106
2012	0.1084	0.0250	2.0575	0.0122	(0.0036)	0.0840	0.0648	(0.0379)	0.1865
Speed years	$1/\lambda^*$	$1/\lambda_G^*$	$1/\lambda_{PRI}^*$	actual	endoge.	difference	Δd	$SPRI - \text{PRI}$	bop
8. Turkey	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL
1990	13.25	12.99	14.81	0.1786	0.1604	0.0182	(0.0341)	(0.0137)	(0.0478)
1991	4.09	9.56	9.59	0.1801	0.1519	0.0281	(0.0565)	0.0264	(0.0302)
1992	4.91	10.00	7.24	0.1779	0.1703	0.0076	(0.0462)	0.0145	(0.0318)
1993	5.27	15.58	6.07	0.1982	0.1854	0.0128	(0.0253)	(0.0352)	(0.0605)
1994	7.85	23.37	12.15	0.1840	0.1181	0.0659	(0.0317)	0.0422	0.0104
1995	6.71	31.57	8.92	0.1854	0.1484	0.0370	(0.0215)	(0.0281)	(0.0495)
1996	5.61	5.98	6.78	0.1951	0.1938	0.0013	(0.0238)	(0.0461)	(0.0699)
1997	6.19	10.16	8.95	0.2055	0.1724	0.0331	(0.0477)	(0.0168)	(0.0645)
1998	7.12	43.67	17.99	0.1778	0.1346	0.0432	(0.0387)	0.0515	0.0129
1999	8.94	14.41	34.52	0.1473	0.1014	0.0459	(0.0507)	0.0524	0.0017
2000	8.03	17.76	14.25	0.0186	0.1196	(0.1010)	(0.0292)	(0.0040)	(0.0333)
2001	358.09	4.84	17.05	0.1240	0.0565	0.0675	(0.0466)	0.0924	0.0458
2002	10.70	11.82	84.43	0.1300	0.0846	0.0454	(0.0452)	0.0634	0.0182
2003	10.68	6.18	65.10	0.1323	0.0844	0.0479	(0.0854)	0.0738	(0.0116)
2004	9.12	9.61	37.19	0.1582	0.1043	0.0539	(0.0524)	0.0232	(0.0293)
2005	8.60	10.98	19.94	0.1636	0.1110	0.0526	(0.0428)	0.0040	(0.0388)
2006	7.25	13.89	11.43	0.1734	0.1339	0.0395	(0.0264)	(0.0282)	(0.0545)
2007	6.86	16.07	11.64	0.1666	0.1230	0.0436	(0.0198)	(0.0376)	(0.0573)
2008	5.82	14.72	11.57	0.1547	0.1308	0.0239	(0.0271)	(0.0220)	(0.0491)
2009	13.14	14.15	85.93	0.1311	0.0549	0.0763	(0.0467)	0.0344	(0.0123)
2010	1.21	23.50	9.48	0.0000	0.1059	(0.1059)	(0.0427)	(0.0190)	(0.0617)
2011	1.79	13.21	86.25	0.0000	0.0743	(0.0743)	(0.0361)	0.0360	(0.0001)
2012	1.87	14.12	24.03	0.0000	0.0980	(0.0980)	(0.0331)	0.0330	(0.0001)
Employment	n	$n_{EQU(G)-n}$	$n_{EQU(PRI)-n}$	n_{EQU-n}	$n_{EQU(G)-n_G}$	$n_{EQU(PRI)-n_P}$	$Unem.rate(sect)$	$gCPI(actual)$	Infla. rate
8. Turkey	under attaining equilibrium			under the same wage rate by sector			actual; to population		
1990	(0.0113)	0.0000	0.0000	0.0000	0.0000	0.0000	(0.0333)	0.6026	0.4157
1991	0.0219	0.0000	0.0000	0.0000	(0.1010)	0.0157	(0.0374)	0.6600	0.4698
1992	0.0218	0.0000	0.0000	0.0000	(0.0485)	0.0084	(0.0351)	0.7006	0.4676
1993	0.0186	0.0000	0.0000	0.0000	0.0213	(0.0039)	(0.0356)	0.6606	0.4743
1994	0.0173	0.0000	0.0000	0.0000	0.0936	(0.0168)	(0.0347)	1.0627	0.5561
1995	0.0165	0.0000	0.0000	0.0000	0.0421	(0.0067)	(0.0297)	0.8812	0.4653
1996	0.0130	0.0000	0.0000	0.0000	(0.0759)	0.0116	(0.0261)	0.8095	0.4794
1997	0.0133	0.0000	0.0000	0.0000	(0.0570)	0.0094	(0.0311)	0.8596	0.6468
1998	0.0169	0.0000	0.0000	0.0000	0.1483	(0.0262)	(0.0279)	0.8491	0.6185
1999	0.0161	0.0000	0.0000	0.0000	(0.2068)	0.0304	(0.0329)	0.6480	0.5337
2000	0.0156	0.0000	0.0000	0.0000	0.0643	(0.0117)	(0.0297)	0.5480	0.5548
2001	(0.0355)	0.0000	0.0000	0.0000	(0.0490)	0.0083	(0.0378)	0.5440	1.2473
2002	0.0144	0.0000	0.0000	0.0000	(0.0272)	0.0049	(0.0464)	0.4495	0.4455
2003	0.0141	0.0000	0.0000	0.0000	0.0264	(0.0049)	(0.0473)	0.2529	0.3136
2004	0.0138	0.0000	0.0000	0.0000	0.0228	(0.0041)	(0.0046)	0.1059	0.1977
2005	0.0133	0.0000	0.0000	0.0000	0.0111	(0.0019)	(0.0459)	0.1013	0.1668
2006	0.0131	0.0000	0.0000	0.0000	(0.0404)	0.0069	(0.0446)	0.1050	0.1902
2007	0.0127	0.0000	0.0000	0.0000	(0.0505)	0.0091	(0.0459)	0.0878	0.1979
2008	0.0124	0.0000	0.0000	0.0000	0.0131	(0.0025)	(0.0495)	0.1040	0.2077
2009	0.0125	0.0000	0.0000	0.0000	(0.2026)	0.0381	(0.0630)	0.0625	0.1163
2010	0.0126	0.0000	0.0000	0.0000	0.0280	(0.0066)	(0.0536)	0.0858	0.1194
2011	0.0128	0.0000	0.0000	0.0000	0.1854	(0.0420)	(0.0441)	0.0647	0.1052
2012	0.0129	0.0000	0.0000	0.0000	0.0979	(0.0174)	(0.0414)	0.0890	0.1385

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*(G)	HA $_{\Omega}^*$ PRI*(G)PRI	Width $_{\Omega}(i)$	Width $_{\Omega}^*$ G*(G)	Width $_{\Omega}^*$ P*(G)PRI
8. Turkey		G	PRI		G	PRI	#NUM!	G	PRI
1990	0.4424	0.7963	0.2356	0.6479	2.7529	0.2540	#NUM!	#NUM!	#NUM!
1991	0.4003	0.7404	0.2234	0.7293	2.6879	0.3438	0.1607	0.4547	0.0968
1992	0.3676	0.6746	0.2351	0.6068	2.0264	0.3296	0.1401	0.3565	0.0933
1993	0.3435	0.6003	0.2582	0.5308	1.4452	0.3566	0.1184	#NUM!	0.0912
1994	0.2864	0.5757	0.1991	0.4244	1.1607	0.2956	0.0980	0.1977	0.0783
1995	0.2720	0.5562	0.1932	0.3802	0.9917	0.2624	0.0893	0.1680	0.0715
1996	0.2923	0.5296	0.2278	0.4008	0.8867	0.3002	0.0820	0.1370	0.0690
1997	0.2874	0.5351	0.2135	0.3973	0.9540	0.2853	0.0826	0.1487	0.0675
1998	0.2446	0.6004	0.1308	0.3256	0.9785	0.2142	0.0812	0.1627	0.0643
1999	0.2515	0.6085	0.1023	0.3477	1.2240	0.3605	0.0826	0.1972	0.0855
2000	0.2541	0.6155	0.1133	0.3513	1.2515	0.1543	0.0824	0.1965	0.0509
2001	0.2207	0.5990	0.0623	0.0932	1.1046	0.2160	#NUM!	#NUM!	#NUM!
2002	0.2300	0.6226	0.0469	0.3223	1.3620	1.8072	0.0750	0.2044	#NUM!
2003	0.2480	0.6823	0.0042	0.3502	1.8955	0.0022	0.0781	0.2706	#NUM!
2004	0.2785	0.7148	0.0160	0.3981	2.0076	0.0313	0.0839	0.2763	0.0202
2005	0.3147	0.7383	0.0502	0.4698	2.3279	0.0654	0.0919	0.3094	#NUM!
2006	0.3514	0.7392	0.1140	0.5473	2.3226	0.1395	0.1015	0.3059	0.0440
2007	0.3879	0.7425	0.1696	0.6413	2.5036	0.2171	0.1110	0.3224	0.0554
2008	0.4122	0.7510	0.2103	0.7173	2.6292	0.2876	0.1194	0.3331	0.0653
2009	0.4432	0.7469	0.2253	0.9544	3.2718	(2.5471)	0.1467	0.4156	0.2339
2010	0.4484	0.7350	0.2694	0.8311	4.4169	0.3428	0.1329	0.5560	0.0706
2011	0.4280	0.7680	0.2267	0.8576	2.8807	19.8024	0.1380	0.3669	2.2867
2012	0.4400	0.7985	0.2213	0.8652	3.1439	0.4814	0.1400	0.3952	0.0935
Key ratios	α	δ_0	β^*	Ω	$g_A^*=(1-\beta^*)$	$x=r^*/g_Y^*$ $x=a/(i \cdot b^*)$	$r^*=\alpha/\Omega$	$r_G^*=\alpha_G/\Omega_G$	$r_{PRI}^*=\alpha_{PRI}/\Omega_{PRI}$
8. Turkey							G	PRI	
1990	0.0926	0.0885	0.4138	0.7281	0.0941	1.3941	0.1271	0.0781	0.2241
1991	0.0945	(1.6974)	0.4515	0.5914	0.0833	1.3776	0.1598	0.0693	0.3156
1992	0.1036	(0.8270)	0.4089	0.5099	0.1007	1.4871	0.2031	0.0743	0.3625
1993	0.0956	(0.4900)	0.3742	0.4646	0.1160	1.3785	0.2058	0.1119	0.2782
1994	0.0973	(0.3998)	0.3235	0.3562	0.0799	2.5459	0.2732	0.1839	0.3512
1995	0.0935	(0.2893)	0.2989	0.3331	0.1041	2.1089	0.2808	0.2720	0.2879
1996	0.0953	(0.2446)	0.3097	0.3689	0.1338	1.5868	0.2583	0.2902	0.2381
1997	0.0924	(0.2523)	0.3073	0.3613	0.1194	1.7442	0.2557	0.2184	0.2836
1998	0.1112	(0.2785)	0.2714	0.2830	0.0980	3.0454	0.3931	0.3926	0.3938
1999	0.1192	(0.3501)	0.2863	0.2913	0.0724	4.1080	0.4093	0.2123	0.8993
2000	0.0983	(0.2898)	0.2835	0.3025	0.0857	2.8997	0.3251	0.2226	0.5422
2001	0.0929	0.4275	0.0902	0.2663	0.0514	18.2276	0.3487	0.1137	1.2951
2002	0.0928	(0.2932)	0.2649	0.2671	0.0622	4.1413	0.3474	0.1676	1.4609
2003	0.1074	(0.3419)	0.2846	0.2903	0.0604	4.4691	0.3698	0.0851	26.2058
2004	0.1056	(0.3541)	0.3110	0.3405	0.0719	3.2547	0.3101	0.1286	5.1781
2005	0.1079	(0.4418)	0.3479	0.4043	0.0724	2.7938	0.2669	0.1070	1.7344
2006	0.1025	(0.5250)	0.3819	0.4799	0.0828	2.0044	0.2136	0.1173	0.5959
2007	0.1136	(0.8953)	0.4229	0.5546	0.0710	2.1854	0.2049	0.0987	0.4910
2008	0.1010	(1.2192)	0.4468	0.6227	0.0723	1.7287	0.1622	0.0891	0.3178
2009	0.1398	4.3612	0.5291	0.6763	0.0258	4.8170	0.2067	0.0140	0.6651
2010	0.1377	(14.1656)	0.4939	0.6922	0.0536	2.6332	0.1990	(0.0441)	0.6130
2011	0.1063	(13.5149)	0.4929	0.6604	0.0377	2.9024	0.1609	0.0799	0.3235
2012	0.0938	(9.5178)	0.4916	0.7029	0.0498	1.9456	0.1334	0.0963	0.2151
Neutral tests	$m_K=M/K$	$m_Y=M/Y$	$m_{PI}=M/PI$	$r_{(DEBT)}-r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)})/g_Y^{**}$ $g_Y^{**}=g_Y^*/g_Y^*(US)$	$r^*-r^*(US)$	$e^*(US)$	$e^*(US)/e^*(US)$
8. Turkey							$e^*(US)=e(US)+(r^*-r^*(US))$		
1990	2.3389	1.7028	18.3955	0.273	3.146	169.7	0.0288	2930	1.0000
1991	2.3174	1.3706	14.5051	0.340	3.130	255.2	0.0706	5080	1.0000
1992	1.7363	0.8854	8.5494	0.297	2.462	301.4	0.1065	8564	1.0000
1993	1.2756	0.5927	6.1992	0.294	2.430	1162.3	0.1190	14473	1.0000
1994	1.3175	0.4692	4.8222	0.327	2.196	6588.5	0.1895	38726	1.0000
1995	1.2032	0.4008	4.2845	0.219	1.780	0.0061	0.1975	0.2572	0.2321
1996	1.0706	0.3949	4.1453	0.242	1.936	0.0106	0.1793	0.2871	0.3755
1997	0.8851	0.3198	3.4618	0.414	2.620	0.0104	0.1836	0.3892	0.5283
1998	0.7271	0.2058	1.8496	0.277	1.704	0.0657	0.3248	0.6393	0.4919
1999	0.6928	0.2018	1.6929	0.191	1.466	0.2012	0.3433	0.8847	0.6120
2000	0.6282	0.1900	1.9321	0.275	1.845	0.2427	0.2596	0.9330	0.7218
2001	0.8205	0.2185	2.3527	0.251	1.721	0.6292	0.2730	1.7231	0.8416
2002	0.7344	0.1962	2.1138	0.157	1.453	0.4179	0.2525	1.8962	0.8668
2003	0.6962	0.2021	1.8823	0.007	1.019	0.3394	0.2670	1.6636	0.8395
2004	0.6336	0.2157	2.0429	(0.068)	0.782	0.3204	0.2065	1.5460	0.8664
2005	1.0113	0.4089	3.7894	(0.063)	0.764	0.3161	0.1547	1.4998	0.8969
2006	0.9090	0.4362	4.2553	0.003	1.013	0.4176	0.1195	1.5285	0.9218
2007	0.8183	0.4538	3.9934	0.021	1.101	0.4631	0.1292	1.3000	0.9006
2008	0.8191	0.5101	5.0489	0.067	1.412	0.4528	0.0782	1.6032	0.9512
2009	0.8504	0.5751	4.1133	(0.030)	0.854	(0.2705)	0.0781	1.5690	0.9502
2010	0.8587	0.5943	4.3160	(0.046)	0.768	0.0465	0.0845	1.6258	0.9480
2011	0.8744	0.5774	5.4338	(0.019)	0.884	45.0006	0.0464	1.9399	0.9761
2012	0.8290	0.5827	6.2141	0.030	1.226	64.8597	0.0189	1.8008	0.9895

Data source of Tables C1-2 and C1-2: KEWT 8.14-3 for 15 Europe Area by sector, 1990-2012, whose original data are from *International Financial Statistics Yearbook*, IMF.

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

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

Cost of capit:	$HA_{r^*}(i)$	$r^* - HA_{r^*}(i)$	$v^* = r^*/(r^* - gY^*)$	CC^*_{REAL}	$CC^*_{REAL(G)}$	$CC^*_{REAL(PRI)}$	$CC^*_{NOMINAL}$	CC^*_{NOMIG}	CC^*_{NOMIP}
9. Ukraine	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1993	0.1149	0.0039	8.3339	0.0005	(0.0001)	0.0007	0.0143	(0.0040)	0.0193
1994	0.1191	(0.0040)	2.6337	(0.0015)	(0.0000)	(0.0026)	0.0437	0.0009	0.0560
1995	0.3277	(0.0130)	2.2834	(0.0057)	0.0019	(0.0155)	0.1378	(0.0976)	0.2231
1996	0.2918	(0.0137)	2.2985	(0.0060)	0.0015	(0.0161)	0.1210	(0.0607)	0.1995
1997	0.2698	(0.0145)	2.4373	(0.0060)	0.0013	(0.0141)	0.1047	(0.0368)	0.1795
1998	0.0869	(0.0259)	5.3334	(0.0049)	0.0024	(0.0123)	0.0114	(0.0199)	(0.0042)
1999	0.0976	(0.0168)	2.3426	(0.0072)	0.0005	0.0027	0.0345	(0.0098)	0.0072
2000	0.1287	(0.0165)	2.3756	(0.0069)	(0.0005)	(0.0561)	0.0472	0.0091	0.0161
2001	0.1078	(0.0071)	3.5831	(0.0020)	(0.0000)	0.0038	0.0281	0.0008	(0.0123)
2002	0.1283	(0.0161)	2.1539	(0.0075)	(0.0014)	(0.0148)	0.0521	0.0257	(0.0154)
2003	0.1286	(0.0133)	2.5407	(0.0053)	(0.0008)	0.0439	0.0454	0.0155	(0.0179)
2004	0.2378	(0.0224)	1.5055	(0.0149)	0.0008	0.1219	0.1431	(0.0194)	0.3821
2005	0.1317	(0.0099)	2.9584	(0.0033)	0.0002	0.0459	0.0412	(0.0066)	(0.0460)
2006	0.1125	(0.0063)	10.3683	(0.0006)	(0.0003)	0.0167	0.0102	0.0084	(0.1385)
2007	0.1182	(0.0048)	76.3188	(0.0001)	(0.0001)	0.0111	0.0015	0.0021	(0.1480)
2008	0.1058	(0.0037)	(9.1086)	0.0004	(0.0000)	0.0046	(0.0112)	0.0005	(0.1000)
2009	0.1239	(0.0092)	1.7969	(0.0051)	0.0017	(0.0658)	0.0638	(0.0435)	0.2301
2010	0.1317	(0.0114)	1.7175	(0.0066)	0.0055	(0.0532)	0.0701	(0.0872)	0.3750
2011	0.1271	(0.0086)	2.7350	(0.0031)	0.0048	(0.0103)	0.0433	(0.0241)	0.1914
2012	0.2954	0.0110	0.6504	0.0169	0.0060	0.0451	0.4711	(0.0348)	2.3911
Speed years	$1/\lambda^*$	$1/\lambda_G^*$	$1/\lambda_{PRI}^*$	i_{actual}	$i_{endog.}$	difference	Δd	$SPRI - iPRI$	bop
9. Ukraine	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL
1993	1549.70	137.14	1670.20	0.0415	0.8667	(0.8252)	(0.0111)	0.0111	0.0000
1994	63.25	42.41	78.50	0.1880	0.4259	(0.2380)	(0.0088)	(0.0282)	(0.0370)
1995	28.72	19.91	51.20	0.1827	0.3761	(0.1935)	(0.0714)	0.0204	(0.0510)
1996	25.41	17.83	77.86	0.1622	0.3211	(0.1588)	(0.0545)	0.0123	(0.0423)
1997	23.13	20.04	48.99	0.1557	0.3302	(0.1745)	(0.0416)	(0.0071)	(0.0488)
1998	6.44	18.83	43.20	0.1531	0.1423	0.0108	(0.0325)	(0.0152)	(0.0476)
1999	15.92	23.46	192.29	0.1509	0.1121	0.0388	(0.0225)	0.0540	0.0315
2000	16.66	25.65	152.02	0.1536	0.1410	0.0126	(0.0089)	0.0317	0.0229
2001	22.42	22.64	100.94	0.1535	0.1506	0.0029	(0.0147)	0.0131	(0.0016)
2002	17.92	30.30	115.46	0.1495	0.1290	0.0205	0.0049	0.0280	0.0330
2003	19.67	27.77	274.08	0.1606	0.1462	0.0144	(0.0029)	0.0187	0.0158
2004	122.59	24.32	31.24	0.1758	0.1352	0.0406	(0.0293)	0.1037	0.0744
2005	6.64	25.20	476.97	0.1711	0.1529	0.0182	(0.0191)	0.0159	(0.0033)
2006	4.09	26.87	23.08	0.1917	0.1819	0.0098	(0.0074)	(0.0421)	(0.0494)
2007	2.69	26.18	16.98	0.2143	0.2076	0.0068	(0.0128)	(0.0558)	(0.0686)
2008	4.00	24.36	11.85	0.2121	0.2095	0.0025	(0.0115)	(0.0874)	(0.0989)
2009	52.09	18.57	92.59	0.1405	0.1015	0.0390	(0.0398)	(0.0019)	(0.0417)
2010	4.83	10.90	34.05	0.0000	0.0979	(0.0979)	(0.0646)	0.0285	(0.0361)
2011	3.03	34.20	10.31	0.0000	0.1431	(0.1431)	(0.0159)	(0.0599)	(0.0758)
2012	3.33	26.17	3.60	0.0000	(0.2342)	0.2342	(0.0219)	0.2611	0.2392
Employment	n	$n_{EQU(G)-n}$	$n_{EQU(PRI)-n}$	n_{EQU-n}	$n_{EQU(G)-nG}$	$n_{EQU(PRI)-nP}$	Unem.rate(act)	$gCPI(actual)$	Infla. rate
9. Ukraine	under attaining equilibrium			under the same wage rate by sector			actual; to population		
1993	0.0035	0.0000	0.0000	#DIV/0!	#DIV/0!	#DIV/0!	0.0000	0.0000	0.2861
1994	(0.0025)	0.0000	0.0000	0.0000	0.8775	2.0785	0.0000	0.0000	0.2840
1995	(0.0073)	0.0000	0.0000	0.0000	0.4020	(0.1057)	(0.0252)	0.0000	0.2630
1996	(0.0077)	0.0000	0.0000	0.0000	0.0100	(0.0014)	(0.0342)	80.3000	0.2337
1997	(0.0086)	0.0000	0.0000	0.0000	(0.0428)	0.0060	(0.0401)	15.9000	0.2345
1998	(0.0210)	0.0000	0.0000	0.0000	0.1732	(0.0254)	(0.0509)	10.6000	0.2257
1999	(0.0096)	0.0000	0.0000	0.0000	0.1459	(0.0172)	(0.0522)	22.7000	0.2230
2000	(0.0095)	0.0000	0.0000	0.0000	(0.0126)	0.0012	(0.0522)	28.2000	0.1907
2001	(0.0051)	0.0000	0.0000	0.0000	(0.1058)	0.0106	(0.0491)	76.2000	0.1422
2002	(0.0086)	0.0000	0.0000	0.0000	0.0625	(0.0070)	(0.0432)	76.8000	0.1359
2003	(0.0081)	0.0000	0.0000	0.0000	(0.0567)	0.0059	(0.0410)	80.7000	0.1328
2004	(0.0075)	0.0000	0.0000	0.0000	0.0208	(0.0023)	(0.0387)	88.1000	0.1453
2005	(0.0065)	0.0000	0.0000	0.0000	0.0943	(0.0102)	(0.0324)	100.0000	0.1259
2006	(0.0057)	0.0000	0.0000	0.0000	(0.0067)	0.0006	(0.0306)	109.1000	0.1192
2007	(0.0047)	0.0000	0.0000	0.0000	0.0512	(0.0050)	(0.0302)	123.1000	0.1181
2008	(0.0041)	0.0000	0.0000	0.0000	0.0303	(0.0028)	(0.0288)	154.1000	0.1205
2009	(0.0041)	0.0000	0.0000	0.0000	(0.0781)	0.0069	(0.0396)	178.5000	0.1118
2010	(0.0048)	0.0000	0.0000	0.0000	(0.0027)	0.0003	(0.0365)	195.4000	0.1170
2011	(0.0054)	0.0000	0.0000	0.0000	0.1282	(0.0124)	(0.0356)	210.9000	0.1017
2012	(0.0059)	0.0000	0.0000	0.0000	(0.1376)	0.0115	(0.0338)	212.1000	0.0730

Data source: KEWT 8.14-3 for 15 Europe Area by sector, 1990-2012, 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	$HA_{\beta}^{*(i)}$	$HA_{\beta}^{*(i)G}$	$HA_{\beta}^{*(i)PRI}$	$HA_{\Omega}^{*(i)}$	$HA_{\Omega}^{*(i)G}$	$HA_{\Omega}^{*(i)PRI}$	Width $_{\Omega}^{(i)}$	Width $_{\Omega}^{(i)G}$	Width $_{\Omega}^{(i)PRI}$
9. Ukraine	G	G	PRI		G	PRI		G	PRI
1993	0.9979	0.9832	1.0019	8.5571	6.5777	9.3018	0.5037	0.3900	0.5464
1994	0.9401	0.9443	0.9389	5.4087	5.1433	5.4591	0.2786	0.2642	0.2814
1995	0.7638	0.8875	0.7203	1.5449	2.3971	1.3104	0.1517	0.2175	0.1331
1996	0.6938	0.8698	0.6226	1.3312	2.4615	1.0319	0.1416	0.2325	0.1167
1997	0.7175	0.8857	0.6398	1.4656	2.9189	1.0946	0.1615	0.2877	0.1285
1998	0.6267	0.8760	0.5111	1.0902	3.0639	(0.5700)	0.2149	0.4783	0.0746
1999	0.5968	0.8942	0.4422	1.1039	3.2483	1.2923	0.1460	0.3381	0.1699
2000	0.5700	0.8912	0.3897	1.0147	3.1010	0.1423	0.1352	0.3215	0.0393
2001	0.5567	0.8819	0.3592	1.0460	3.2492	0.4310	0.1018	0.2479	0.0562
2002	0.5648	0.8991	0.3358	0.9981	3.1873	13.8828	0.1272	0.3133	1.3369
2003	0.5582	0.8967	0.3069	0.9954	3.2886	0.1299	0.1229	0.3132	0.0347
2004	0.5570	0.9057	0.2622	0.9015	3.5629	0.4661	0.1072	0.3255	0.0691
2005	0.5106	0.9014	0.2056	0.8612	3.4729	0.1318	0.0993	0.2962	0.0315
2006	0.5085	0.8984	0.2145	0.8843	3.4360	0.2513	0.0952	0.2749	0.0430
2007	0.5041	0.8989	0.2258	0.8784	3.2890	0.2796	0.0856	0.2380	0.0415
2008	0.4983	0.8928	0.2541	0.8738	3.5542	0.3282	0.0797	0.2404	0.0423
2009	0.5408	0.9031	0.2811	0.9638	5.8167	0.2786	0.0853	0.3922	0.0369
2010	0.5240	0.8952	0.2753	0.8919	8.9909	0.2892	0.0868	0.6574	0.0399
2011	0.5144	0.8920	0.3145	0.8821	6.7519	0.3858	0.0922	0.5324	0.0516
2012	0.4433	0.8856	0.1142	0.6670	6.6777	0.1041	0.0762	0.5502	0.0235
Key ratios	α	δ_0	β^*	Ω	$g_A^* = i(1-\beta^*)$	$x = r^*/g_Y^*$ $x = a/(i \cdot b^*)$	$r^* = \alpha/\Omega$	$r_G^* = \alpha_G/\Omega_G$	$r_{PRI}^* = \alpha_{PRI}/\Omega_{PRI}$
9. Ukraine							G	PRI	
1993	0.9829	0.6601	0.9980	8.2741	0.0017	1.1364	0.1188	0.1387	0.1135
1994	0.6442	0.3665	0.9381	5.5972	0.0264	1.6121	0.1151	0.1319	0.1102
1995	0.5062	0.5806	0.7565	1.6086	0.0916	1.7792	0.3147	0.2835	0.3282
1996	0.3885	0.5661	0.6836	1.3967	0.1016	1.7701	0.2781	0.2477	0.2953
1997	0.3955	0.5010	0.7062	1.5490	0.0970	1.6957	0.2553	0.2029	0.2889
1998	0.0948	(1.6703)	0.5411	1.5524	0.0653	1.2308	0.0610	0.1523	(0.0115)
1999	0.1077	(0.4172)	0.5506	1.3336	0.0504	1.7448	0.0808	0.1754	(0.0187)
2000	0.1306	(0.0442)	0.5362	1.1634	0.0654	1.7269	0.1122	0.1850	0.0189
2001	0.1128	0.2912	0.5398	1.1197	0.0693	1.3871	0.1007	0.1653	0.0045
2002	0.1280	(0.0478)	0.5316	1.1416	0.0604	1.8666	0.1121	0.1865	(0.0243)
2003	0.1280	0.1557	0.5310	1.1106	0.0686	1.6491	0.1153	0.1751	(0.0146)
2004	0.2144	1.0355	0.5325	0.9954	0.0632	2.9783	0.2154	0.1664	0.3585
2005	0.1134	(1.0091)	0.4911	0.9309	0.0778	1.5106	0.1218	0.1690	(0.0395)
2006	0.0994	(1.7103)	0.4940	0.9371	0.0920	1.1067	0.1061	0.1685	(0.0911)
2007	0.1039	(2.5839)	0.4938	0.9152	0.1051	1.0133	0.1135	0.1845	(0.0857)
2008	0.0924	(1.3706)	0.4895	0.9052	0.1070	0.9011	0.1021	0.1545	(0.0119)
2009	0.1194	0.5308	0.5215	1.0413	0.0486	2.2548	0.1147	0.0584	0.2444
2010	0.1175	5.1594	0.5014	0.9763	0.0488	2.3938	0.1203	(0.0120)	0.4085
2011	0.1121	(3.6580)	0.4970	0.9458	0.0720	1.5764	0.1185	0.0029	0.2921
2012	0.1971	(1.3069)	0.4523	0.6432	(0.1283)	(1.8606)	0.3064	(0.0007)	2.0785
Neutral tests	$m_K = M/K$	$m = M/Y$	$m_{\Pi} = M/\Pi$	$r_{(DEBT)} - r^*$	$r_{(DEBT)}/r^*$	$(e(US))/g_Y^{**}$ $g_Y^{**} = g_Y^*/g_Y^*(US)$	$r^* - r^*(US)$	$e^*(US)$	$e(US)/e^*(US)$
9. Ukraine							$e^*(US) = e(US) + (r^* - r^*(US))$		
1993	6.1	50.7	52	0.171	2.441	0.01	0.0320	0.16	0.7976
1994	30.8	172.2	267	0.165	2.433	0.21	0.0314	1.07	0.9707
1995	59.3	95.5	189	(0.065)	0.794	0.11	0.2314	2.03	0.8858
1996	61.6	86.1	222	(0.058)	0.791	0.17	0.1992	2.09	0.9046
1997	69.5	107.7	272	(0.035)	0.862	0.08	0.1832	2.08	0.9120
1998	107.7	167.1	1764	0.139	3.273	1.09	(0.0072)	3.42	1.0021
1999	138.7	185.0	1717	0.125	2.553	2.82	0.0148	5.23	0.9972
2000	177.1	206.0	1578	0.062	1.552	2.47	0.0467	5.48	0.9915
2001	219.6	245.9	2180	0.034	1.341	1.67	0.0250	5.32	0.9953
2002	277.2	316.5	2472	0.008	1.068	1.34	0.0172	5.35	0.9968
2003	355.0	394.3	3080	0.004	1.037	1.11	0.0124	5.34	0.9977
2004	405.9	404.0	1884	(0.092)	0.571	1.27	0.1117	5.42	0.9794
2005	522.1	486.1	4286	(0.006)	0.952	1.10	0.0096	5.06	0.9981
2006	565.2	529.7	5326	0.007	1.064	1.35	0.0120	5.06	0.9976
2007	659.1	603.2	5808	(0.000)	0.998	1.36	0.0378	5.09	0.9926
2008	663.5	600.6	6499	0.015	1.144	1.56	0.0181	7.72	0.9977
2009	566.4	589.8	4939	(0.012)	0.895	(0.79)	(0.0140)	7.97	1.0018
2010	627.4	612.6	5215	(0.015)	0.878	0.27	0.0058	7.97	0.9993
2011	608.3	575.4	5133	(0.025)	0.786	98.76	0.0040	7.99	0.9995
2012	938.5	603.6	3063	(0.222)	0.274	(100.18)	0.1919	8.18	0.9766

Data source: KEWT 8.14-3 for 15 Europe Area by sector, 1990-2012, whose original data are from *International Financial Statistics Yearbook*, IMF.

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

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

Cost of capit:	$\text{HA}_{r^{**}(t)}$	$r^* - \text{HA}_{r^{**}(t)}$	$v^* = r^* / (r^* - gY^*)$	$\text{CC}^*_{\text{REAL}}$	$\text{CC}^*_{\text{REAL}(G)}$	$\text{CC}^*_{\text{REAL}(\text{PRI})}$	$\text{CC}^*_{\text{NOMINAL}}$	$\text{CC}^*_{\text{NOMI}(G)}$	$\text{CC}^*_{\text{NOMI}(P)}$
9. Kazakh:	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1995	0.0606	(0.0051)	62.4548	(0.0001)	0.0009	(0.0007)	0.0009	(0.0241)	0.0057
1996	0.1116	(0.0338)	1.6899	(0.0200)	0.0074	(0.2686)	0.0460	(0.0835)	0.0752
1997	0.1584	(0.0480)	1.4393	(0.0333)	0.0063	(0.7057)	0.0767	(0.0655)	0.1150
1998	0.1997	(0.0700)	1.2548	(0.0558)	0.0062	0.1571	0.1033	(0.0694)	0.1595
1999	0.1176	(0.0344)	1.5234	(0.0226)	0.0033	0.0768	0.0546	(0.0432)	0.0816
2000	0.1822	(0.0318)	1.3338	(0.0239)	(0.0030)	(0.0560)	0.1128	0.0320	0.1481
2001	0.1872	(0.0331)	4.7173	(0.0070)	(0.0124)	(0.0079)	0.0327	0.0224	0.0438
2002	0.1575	0.0050	5.8475	0.0009	0.0011	0.0009	0.0278	0.0247	0.0316
2003	0.1693	0.0125	3.4438	0.0036	0.0014	0.0045	0.0528	0.0251	0.0606
2004	0.1929	0.0155	2.8958	0.0054	0.0031	0.0062	0.0720	0.0460	0.0804
2005	0.2222	0.0144	3.9241	0.0037	0.0058	0.0033	0.0603	0.0776	0.0561
2006	0.2527	0.0148	4.2604	0.0035	0.0056	0.0029	0.0628	0.0968	0.0530
2007	0.2083	0.0121	12.5747	0.0010	(0.0012)	0.0013	0.0175	(0.0141)	0.0258
2008	0.2383	0.0168	2.9284	0.0057	0.0350	0.0034	0.0871	0.2316	0.0570
2009	0.1166	0.0119	12.1451	0.0010	0.0001	0.0012	0.0106	0.0009	0.0126
2010	0.1690	0.0152	4.0251	0.0038	0.0021	0.0041	0.0458	0.0259	0.0500
2011	0.2030	0.0214	2.1163	0.0101	0.0038	0.0118	0.1061	0.0461	0.1194
2012	0.2004	0.0120	8.4610	0.0014	0.0071	0.0007	0.0251	0.0768	0.0143
Speed years	$1/\lambda^*$	$1/\lambda_G^*$	$1/\lambda_{\text{PRI}}^*$	i_{actual}	$i_{\text{endog.}}$	difference	Δd	$\text{SPRI} - \text{IPRI}$	bop
9. Kazakh:	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL
1995	20.51	12.09	25.06	0.0310	0.1491	(0.1180)	(0.0267)	(0.0321)	(0.0588)
1996	7.62	7.58	58.19	0.0023	0.0866	(0.0843)	(0.0489)	0.0303	(0.0186)
1997	3.54	8.55	70.47	(0.0083)	0.0857	(0.0939)	(0.0443)	(0.0011)	(0.0454)
1998	2.64	9.25	84.05	0.0226	0.0690	(0.0463)	(0.0485)	(0.0001)	(0.0485)
1999	27.19	10.92	90.48	0.0208	0.0689	(0.0481)	(0.0370)	0.0717	0.0348
2000	143.64	19.39	125.54	0.0128	0.0760	(0.0633)	(0.0014)	0.1003	0.0989
2001	1.85	7.35	8.38	0.0961	0.2552	(0.1590)	(0.0046)	(0.0664)	(0.0710)
2002	20.66	20.21	31.50	0.1040	0.2679	(0.1639)	(0.0041)	(0.0510)	(0.0551)
2003	24.45	16.09	37.41	0.0987	0.2488	(0.1501)	(0.0115)	0.0082	(0.0033)
2004	27.58	18.13	45.24	0.1230	0.2545	(0.1315)	(0.0035)	0.0255	0.0220
2005	21.59	21.22	24.48	0.1558	0.3334	(0.1777)	0.0068	(0.0131)	(0.0064)
2006	19.59	21.89	19.55	0.1800	0.3928	(0.2128)	0.0088	(0.0199)	(0.0110)
2007	15.08	14.67	15.79	0.1863	0.4314	(0.2451)	(0.0190)	(0.0486)	(0.0676)
2008	21.27	57.82	18.18	0.1491	0.3493	(0.2002)	0.0527	0.0090	0.0616
2009	17.16	15.69	17.51	0.1538	0.2928	(0.1390)	(0.0155)	(0.0180)	(0.0336)
2010	18.74	16.99	19.13	0.0000	0.3244	(0.3244)	(0.0082)	0.0355	0.0273
2011	26.11	18.78	28.15	0.0000	0.2580	(0.2580)	(0.0017)	0.1338	0.1320
2012	16.20	23.42	15.47	0.0000	0.4516	(0.4516)	0.0108	(0.0466)	(0.0358)
Employment	n	$n_{\text{EQUI}(G)-n}$	$n_{\text{EQUI}(\text{PRI})-n}$	$n_{\text{EQUI}-n}$	$n_{\text{EQUI}(G)-n}$	$n_{\text{EQUI}(\text{PRI})-n}$	Unem.rate(act)	$g_{\text{PRI}}(\text{actual})$	Infla. rate
9. Kazakh:	under attaining equilibrium			under the same wage rate by sector			actual;	to population	
1995	(0.0050)	0.0000	0.0000	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	0.0051
1996	(0.0138)	0.0000	0.0000	0.0000	(0.0450)	0.0087		0.3927	0.0338
1997	(0.0146)	0.0000	0.0000	0.0000	0.0094	(0.0019)		0.1726	0.0480
1998	(0.0142)	0.0000	0.0000	0.0000	0.0914	(0.0184)		0.0723	0.0700
1999	(0.0118)	0.0000	0.0000	0.0000	0.1038	(0.0186)		0.0833	0.0344
2000	(0.0080)	0.0000	0.0000	0.0000	(0.1618)	0.0254		0.1312	0.0318
2001	(0.0261)	0.0000	0.0000	0.0000	(0.1562)	0.0293		0.0840	0.0859
2002	0.0041	0.0000	0.0000	0.0000	0.0621	(0.0139)		0.0581	0.0470
2003	0.0089	0.0000	0.0000	0.0000	0.0374	(0.0078)		0.0645	0.0461
2004	0.0102	0.0000	0.0000	0.0000	(0.0314)	0.0062		0.0688	0.0173
2005	0.0107	0.0000	0.0000	0.0000	(0.0247)	0.0051		0.0753	0.0184
2006	0.0113	0.0000	0.0000	0.0000	0.0080	(0.0017)		0.0860	0.0180
2007	0.0112	0.0000	0.0000	0.0000	(0.0794)	0.0167		0.1077	0.0580
2008	0.0110	0.0000	0.0000	0.0000	0.0288	(0.0066)		0.1712	0.0532
2009	0.0109	0.0000	0.0000	0.0000	0.0405	(0.0090)		0.0731	0.0581
2010	0.0114	0.0000	0.0000	0.0000	(0.0478)	0.0101		0.0714	0.0548
2011	0.0113	0.0000	0.0000	0.0000	(0.0424)	0.0095		0.0000	0.0486
2012	0.0106	0.0000	0.0000	0.0000	(0.0208)	0.0049		0.0000	0.0580

Data source: KEWT 8.14-4 for 19 Rest Area by sector, 1990-2012, 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

Robustnes	HA $_{\beta}^{*(i)}$	HA $_{\beta}^{*(i)G}$	HA $_{\beta}^{*(i)PRI}$	HA $_{\Omega}^{*(i)}$	HA $_{\Omega G}^{*(i)G}$	HA $_{\Omega PRI}^{*(i)PRI}$	Widt $_{\Omega(i)}$	Width $_{\Omega G(i)G}$	Width $_{\Omega P(i)P}$
9. Kazakhstan	G	G	PRI		G	PRI		G	PRI
1995	0.6568	0.6460	0.6588	1.5921	1.4737	1.5846	0.1411	0.1305	0.1409
1996	0.6140	0.6448	0.6071	0.9987	1.4925	0.3051	0.1619	0.2219	0.0713
1997	0.5982	0.6763	0.5777	0.9024	1.6321	0.1672	0.1531	0.2439	0.0505
1998	0.6122	0.7478	0.5709	0.8610	2.1700	73.3365	0.1443	0.3026	#NUM!
1999	0.5480	0.7512	0.4815	0.7881	2.1192	15.1020	0.1260	0.2682	1.6916
2000	0.5322	0.7186	0.4659	0.8074	1.8101	0.5555	0.1035	0.1931	0.0796
2001	0.5516	0.6634	0.5155	0.8704	1.1417	0.7676	0.1982	0.2466	0.1800
2002	0.6029	0.6988	0.5749	1.2524	1.9086	1.1162	0.1029	0.1456	0.0939
2003	0.6097	0.7169	0.5780	1.2977	1.8059	1.1793	0.1546	0.1996	0.1439
2004	0.6107	0.7090	0.5816	1.2676	1.7566	1.1527	0.1612	0.2083	0.1500
2005	0.6376	0.7085	0.6179	1.3131	1.6943	1.2255	0.1685	0.2063	0.1598
2006	0.6718	0.7300	0.6562	1.3897	1.5978	1.3378	0.1785	0.1971	0.1738
2007	0.6939	0.7070	0.6908	1.5880	2.0423	1.5070	0.1997	0.2534	0.1901
2008	0.7133	0.6994	0.7162	1.6180	1.5940	1.6456	0.1994	0.1957	0.2026
2009	0.7018	0.7007	0.7020	1.9747	1.9410	1.9824	0.2429	0.2392	0.2437
2010	0.7187	0.7096	0.7206	1.8788	1.8742	1.8798	0.2342	0.2351	0.2340
2011	0.7177	0.7072	0.7200	1.7765	1.8113	1.7704	0.2200	0.2262	0.2188
2012	0.7537	0.7179	0.7611	1.9533	1.8759	1.9764	0.2296	0.2245	0.2313
Key ratios	α	δ_0	β^*	Ω	$g_A = i(1-\beta^*)$	$x = r^*/g_Y^*$	$r^* = \alpha/\Omega$	$r^*_G = \alpha_G/\Omega_G$	$r^*_{PRI} = \alpha_P/\Omega_P$
9. Kazakhstan						$x = a/(i \cdot b^*)$	G	G	PRI
1995	0.0965	0.0157	0.6368	1.7379	0.0541	1.0163	0.0555	0.1087	0.0458
1996	0.1115	(2.4942)	0.5257	1.4332	0.0411	2.4494	0.0778	0.0723	0.0791
1997	0.1429	(6.0234)	0.5092	1.2947	0.0421	3.2761	0.1104	0.0877	0.1174
1998	0.1719	(10.4481)	0.5062	1.3263	0.0341	4.9250	0.1296	0.0909	0.1451
1999	0.0927	1.7028	0.4619	1.1133	0.0371	2.9105	0.0832	0.1110	0.0691
2000	0.1471	0.6492	0.4843	0.9782	0.0392	3.9959	0.1504	0.1162	0.1692
2001	0.1629	(3.4444)	0.5031	1.0574	0.1268	1.2690	0.1541	0.0695	0.1892
2002	0.1972	0.5678	0.6104	1.2141	0.1044	1.2063	0.1624	0.1159	0.1790
2003	0.2197	0.6344	0.6266	1.2083	0.0929	1.4092	0.1818	0.1875	0.1798
2004	0.2445	0.6974	0.6289	1.1731	0.0944	1.5275	0.2084	0.1961	0.2129
2005	0.2917	0.6664	0.6520	1.2331	0.1160	1.3420	0.2366	0.2219	0.2413
2006	0.3512	0.6476	0.6841	1.3130	0.1241	1.3067	0.2675	0.2905	0.2606
2007	0.3308	0.5363	0.7058	1.5006	0.1269	1.0864	0.2204	0.1163	0.2463
2008	0.3856	0.5780	0.7270	1.5117	0.0954	1.5186	0.2551	0.3046	0.2450
2009	0.2303	0.3880	0.7217	1.7919	0.0815	1.0897	0.1285	0.1307	0.1281
2010	0.3176	0.4684	0.7358	1.7236	0.0857	1.3306	0.1842	0.1668	0.1879
2011	0.3607	0.5410	0.7375	1.6068	0.0677	1.8958	0.2245	0.1831	0.2336
2012	0.3915	0.4803	0.7644	1.8432	0.1064	1.1340	0.2124	0.1905	0.2166
Neutral tests	$m_K = M/K$	$m_Y = M/Y$	$m_{\Pi} = M/\Pi$	$r_{(DEBT)} - r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)})/g_Y^{**}$	$r^* - r^*(US)$	$e^*(US)$	$e_{(US)}/e^*(US)$
9. Kazakhstan						$g_Y^{**} = g_Y^*/g_Y^*(US)$	$e^*(US) = e(US) + (r^* - r^*(US))$		
1995	0.0703	0.1222	1.2670	(0.056)	0.000	12.483	(0.0278)	63.92	1.0004
1996	0.0799	0.1145	1.0265	(0.078)	0.000	22.977	(0.0012)	73.30	1.0000
1997	0.0925	0.1198	0.8381	(0.110)	0.000	29.138	0.0383	75.59	0.9995
1998	0.0753	0.0999	0.5810	(0.130)	0.000	47.933	0.0613	83.86	0.9993
1999	0.1302	0.1450	1.5646	(0.083)	0.000	104.983	0.0173	138.22	0.9999
2000	0.1741	0.1703	1.1579	(0.150)	0.000	108.101	0.0848	144.58	0.9994
2001	0.1852	0.1959	1.2022	(0.101)	0.343	24.507	0.0783	150.28	0.9995
2002	0.1878	0.2279	1.1558	(0.110)	0.320	20.826	0.0675	154.67	0.9996
2003	0.1428	0.1725	0.7853	(0.123)	0.322	20.042	0.0789	144.30	0.9995
2004	0.1896	0.2224	0.9096	(0.176)	0.157	20.230	0.1047	130.10	0.9992
2005	0.1784	0.2199	0.7539	(0.204)	0.139	15.860	0.1244	134.10	0.9991
2006	0.2321	0.3047	0.8677	(0.235)	0.123	18.461	0.1734	127.17	0.9986
2007	0.2088	0.3133	0.9472	(0.150)	0.318	20.409	0.1447	120.44	0.9988
2008	0.2087	0.3155	0.8181	(0.185)	0.274	19.151	0.1711	120.96	0.9986
2009	0.2016	0.3613	1.5690	(0.059)	0.545	(4.650)	(0.956)	147.50	1.0065
2010	0.2016	0.3475	1.0941	(0.114)	0.380	6.426	(3.900)	143.60	1.0272
2011	0.2052	0.3297	0.9142	(0.154)	0.312	1409	(3.860)	144.54	1.0267
2012	0.1662	0.3063	0.7825	(0.142)	0.330	1729	(3.872)	146.87	1.0264

Data source: KEWT 8.14-4 for 19 Rest Area by sector, 1990-2012, whose original data are from *International Financial Statistics Yearbook*, IMF.

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

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

Cost of capit:	$HA_{r^*(i)}$	$r^* - HA_{r^*(i)}$	$v^* = r^* / (r^* - gY^*)$	CC^*_{REAL}	$CC^*_{REAL(G)}$	$CC^*_{REAL(PRI)}$	$CC^*_{NOMINAL}$	$CC^*_{NOMI(G)}$	$CC^*_{NOMI(P)}$
11. Pakist:	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990	0.0925	0.1274	1.3063	0.0975	(0.0873)	0.5939	0.1683	(0.1137)	1.2366
1991	0.0884	0.0726	1.7034	0.0426	(0.1095)	0.3344	0.0945	(0.1775)	0.8799
1992	0.1064	0.0572	2.0923	0.0274	(0.0848)	0.2059	0.0782	(0.1958)	0.6562
1993	0.1254	0.0625	1.9151	0.0326	(0.0505)	0.2504	0.0981	(0.1958)	0.6179
1994	0.1019	0.0526	2.1199	0.0248	(0.0531)	0.1673	0.0729	(0.1708)	0.4655
1995	0.1073	0.0663	1.7191	0.0386	(0.0516)	0.2138	0.1010	(0.1651)	0.4940
1996	0.1282	0.0631	1.7654	0.0358	(0.0559)	0.1918	0.1084	(0.1983)	0.5279
1997	0.1347	0.0799	1.5927	0.0501	(0.0512)	0.2617	0.1347	(0.1896)	0.5604
1998	0.0944	0.0522	2.0330	0.0257	(0.0440)	0.1439	0.0721	(0.1535)	0.3550
1999	0.1059	0.0827	1.4599	0.0567	(0.0338)	0.4479	0.1292	(0.1515)	0.4904
2000	0.1135	0.0546	1.8429	0.0296	(0.0261)	0.1361	0.0912	(0.1105)	0.3469
2001	0.1906	(0.0264)	1.4807	(0.0178)	0.0068	(0.0883)	0.1109	(0.0803)	0.3283
2002	0.0952	0.0548	1.5422	0.0355	(0.0207)	0.1219	0.0973	(0.0678)	0.3037
2003	0.0711	0.0738	1.3284	0.0555	(0.0202)	0.2530	0.1090	(0.0693)	0.3265
2004	0.0873	0.0651	1.3795	0.0472	(0.0147)	0.1588	0.1105	(0.0484)	0.3071
2005	0.1337	0.0552	1.4903	0.0371	(0.0196)	0.1242	0.1268	(0.0852)	0.3762
2006	0.1599	0.0446	1.7157	0.0260	(0.0589)	0.0696	0.1192	(0.1374)	0.3831
2007	0.1337	0.0371	2.0241	0.0183	(0.0323)	0.0544	0.0844	(0.1306)	0.2610
2008	0.2056	0.0592	1.4645	0.0404	(0.0801)	0.1008	0.1809	(0.2666)	0.4961
2009	0.2011	0.1065	1.2094	0.0881	(0.0868)	0.1813	0.2544	(0.2071)	0.5517
2010	0.1052	0.2731	1.0705	0.2551	(0.0970)	0.6988	0.3534	(0.2400)	0.7383
2011	3.8861	(3.3320)	0.9948	(3.3494)	(0.1710)	(1.4189)	0.5570	(0.3671)	1.2431
2012	1.8734	(0.9844)	0.9831	(1.0014)	(0.1489)	(1.0055)	0.9043	(0.3675)	2.1016
Speed years	$1/\lambda^*$	$1/\lambda_G^*$	$1/\lambda_{PRI}^*$	i_{actual}	$i_{endoge.}$	difference	Δd	$SPRI - i_{PRI}$	bop
11. Pakist:	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL
1990	73.68	22.34	13.57	0.1255	0.0519	0.0736	(0.0602)	0.0474	(0.0128)
1991	33.97	14.47	10.91	0.1275	0.0735	0.0541	(0.0843)	0.0931	0.0088
1992	5.42	9.66	8.86	0.1331	0.1022	0.0309	(0.0880)	0.0643	(0.0236)
1993	12.79	6.84	9.55	0.1418	0.1119	0.0299	(0.0992)	0.0393	(0.0599)
1994	13.21	8.87	9.32	0.1285	0.1027	0.0258	(0.0808)	0.0529	(0.0279)
1995	19.53	9.37	9.88	0.1181	0.0866	0.0316	(0.0737)	0.0519	(0.0218)
1996	13.98	7.55	8.61	0.1215	0.1037	0.0178	(0.0888)	0.0348	(0.0540)
1997	37.23	7.27	6.98	0.1088	0.0968	0.0119	(0.0868)	0.0259	(0.0609)
1998	35.04	9.40	8.37	0.0922	0.0958	(0.0036)	(0.0713)	0.0497	(0.0217)
1999	382.70	8.11	49.56	0.0835	0.0715	0.0120	(0.0764)	0.0488	(0.0276)
2000	7.96	10.79	10.45	0.0850	0.0960	(0.0110)	(0.0504)	0.0224	(0.0280)
2001	23.44	10.74	40.07	0.0835	0.0921	(0.0086)	(0.0416)	0.0156	(0.0261)
2002	49.63	18.29	12.13	0.0783	0.0672	0.0110	(0.0317)	0.0366	0.0049
2003	215.15	18.15	162.58	0.0787	0.0405	0.0382	(0.0320)	0.0732	0.0412
2004	49.51	21.43	14.25	0.0821	0.0486	0.0335	(0.0217)	0.0577	0.0360
2005	3.28	14.12	13.04	0.1107	0.0779	0.0328	(0.0356)	0.0155	(0.0201)
2006	0.15	19.49	7.53	0.1465	0.1130	0.0334	(0.0470)	(0.0199)	(0.0669)
2007	1.71	11.88	7.61	0.1524	0.1189	0.0334	(0.0464)	(0.0129)	(0.0593)
2008	7.82	8.42	5.22	0.1501	0.1112	0.0389	(0.0826)	(0.0172)	(0.0999)
2009	19.31	12.66	7.40	0.1200	0.0610	0.0590	(0.0529)	(0.0008)	(0.0537)
2010	91.66	10.92	77.86	0.1031	0.0193	0.0838	(0.0557)	0.0330	(0.0226)
2011	122.35	6.22	184.75	0.0847	(0.0164)	0.1010	(0.0720)	0.0662	(0.0058)
2012	216.02	7.49	42.47	0.0739	(0.0271)	0.1011	(0.0672)	0.0317	(0.0355)
Employment	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)	$gCPI(actual)$	Infla. rate
11. Pakist:	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	(0.0469)
1991	0.0300	0.0000	0.0000	0.0000	0.1054	(0.0259)	(0.0284)	0.1190	0.0062
1992	0.0299	0.0000	0.0000	0.0000	0.0990	(0.0213)	(0.0266)	0.0942	0.0195
1993	0.0299	0.0000	0.0000	0.0000	(0.0457)	0.0087	(0.0212)	0.1000	0.0115
1994	0.0278	0.0000	0.0000	0.0000	0.1009	(0.0202)	(0.0216)	0.1237	0.0181
1995	0.0277	0.0000	0.0000	0.0000	0.0223	(0.0039)	(0.0243)	0.1236	0.0637
1996	0.0274	0.0000	0.0000	0.0000	(0.0997)	0.0172	(0.0243)	0.1035	0.0669
1997	0.0297	0.0000	0.0000	0.0000	0.0406	(0.0078)	(0.0275)	0.1131	0.0506
1998	0.0265	0.0000	0.0000	0.0000	0.1007	(0.0185)	(0.0266)	0.0624	(0.0043)
1999	0.0261	0.0000	0.0000	0.0000	0.0476	(0.0078)	(0.0266)	0.0413	(0.0411)
2000	0.0250	0.0000	0.0000	0.0000	0.1883	(0.0290)	(0.0351)	0.0438	(0.0130)
2001	(0.0086)	0.0000	0.0000	0.0000	0.1048	(0.0128)	(0.0351)	0.0310	0.0744
2002	0.0193	0.0000	0.0000	0.0000	(0.1167)	0.0126	(0.0374)	0.0330	0.7382
2003	0.0182	0.0000	0.0000	0.0000	(0.0001)	0.0000	(0.0374)	0.0291	(0.0397)
2004	0.0179	0.0000	0.0000	0.0000	0.0705	(0.0086)	(0.0347)	0.0748	(0.0188)
2005	0.0182	0.0000	0.0000	0.0000	0.0194	(0.0022)	(0.0347)	0.0905	0.0067
2006	0.0186	0.0000	0.0000	0.0000	(0.4079)	0.0449	(0.0279)	0.0790	0.0401
2007	0.0188	0.0000	0.0000	0.0000	0.1693	(0.0273)	(0.0239)	0.0760	0.0579
2008	0.0188	0.0000	0.0000	0.0000	(0.4803)	0.0629	(0.0234)	0.2033	0.0574
2009	0.0184	0.0000	0.0000	0.0000	0.3530	(0.0725)	0.0000	0.1360	0.0208
2010	0.0180	0.0000	0.0000	0.0000	(0.0074)	0.0009	0.0000	0.1393	(0.1426)
2011	0.0174	0.0000	0.0000	0.0000	(0.0412)	0.0052	0.0000	0.1189	3.4656
2012	0.0170	0.0000	0.0000	0.0000	(0.1678)	0.0222	0.0000	0.0969	1.1017

Data source: KEWT 8.14-4 for 19 Rest Area by sector, 1990-2012, 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

Robustnes	$HA_{\beta}^*(i)$	$HA_{\beta}^*(i)G$	$HA_{\beta}^*(i)PRI$	$HA_{\Omega}*(i)$	$HA_{\Omega}G*(i)G$	$HA_{\Omega}PRI*(i)PRI$	Widt $_{\Omega}(i)$	Width $_{\Omega}G(i)G$	Width $_{\Omega}PRI(i)PRI$
11. Pakistan									
1990	0.4416	0.7592	0.1744	1.5621	17.0898	0.3117	0.3341	3.0605	0.1002
1991	0.4173	0.7480	0.1882	1.1386	11.9672	0.2987	0.2621	2.2018	0.0991
1992	0.4196	0.7516	0.2216	0.9682	8.2561	0.3335	0.2307	1.5553	0.1065
1993	0.4459	0.7587	0.2512	1.0206	5.4479	0.4471	0.2385	1.0466	0.1286
1994	0.4404	0.7647	0.2593	1.0380	6.1807	0.4488	0.2345	1.1339	0.1258
1995	0.4334	0.7588	0.2612	1.0661	5.8081	0.5087	0.2388	1.0677	0.1367
1996	0.4470	0.7451	0.2859	1.0205	5.5687	0.4956	0.2283	1.0282	0.1320
1997	0.4564	0.7588	0.2935	1.1051	5.5329	0.6046	0.2519	1.0587	0.1575
1998	0.4544	0.7718	0.2946	1.1258	5.7812	0.5842	0.2442	1.0362	0.1481
1999	0.4657	0.7957	0.2885	1.3043	5.6237	3.7835	0.2700	0.9942	0.6728
2000	0.4334	0.8038	0.2633	0.9823	5.3350	0.5021	0.2130	0.9184	0.1304
2001	0.4354	0.8206	0.2648	0.5941	3.8733	0.2531	#NUM!	#NUM!	#NUM!
2002	0.4511	0.8106	0.2859	1.1334	6.1722	0.5763	0.2095	0.9237	0.1264
2003	0.4413	0.8070	0.2735	1.4211	5.9587	1.4546	0.2444	0.8702	0.2483
2004	0.4240	0.8062	0.2598	1.1371	5.6315	0.6385	0.2029	0.8143	0.1317
2005	0.4271	0.8064	0.2695	0.9091	5.4444	0.4676	0.1711	0.7990	0.1058
2006	0.4379	0.7312	0.3179	0.8460	6.2408	0.4574	0.1634	0.9365	0.1036
2007	0.4476	0.7567	0.3374	0.8947	4.8651	0.5370	0.1719	0.7428	0.1176
2008	0.4686	0.6787	0.3862	0.9071	5.1379	0.5684	0.1705	0.8126	0.1173
2009	0.4422	0.7348	0.3526	0.9605	8.4193	0.6012	0.1762	1.2575	0.1220
2010	0.4192	0.7190	0.3287	2.0097	8.2925	6.5934	0.3173	1.2350	0.9314
2011	0.3737	0.6885	0.2770	0.0631	14.3314	0.1203	0.0298	2.1091	0.0408
2012	0.3493	0.6602	0.2398	0.1705	8.4942	0.1279	0.0493	1.2647	0.0397
Key ratios	α	δ_0	β^*	Ω	$g_A = i(1-\beta^*)$	$x = r^*/g_Y^*$	$r^* = \alpha/\Omega$	$r^*_G = \alpha_G/\Omega_G$	$r^*_{PRI} = \alpha_{PRI}/\Omega_{PRI}$
11. Pakistan						$x = a/(i \cdot b^*)$			
1990	0.1444	1.6652	0.6528	0.6570	0.0180	4.2645	0.2199	(0.0748)	1.2988
1991	0.1007	2.7693	0.5660	0.6252	0.0319	2.4216	0.1610	(0.1289)	0.9587
1992	0.1031	5.3668	0.5265	0.6296	0.0484	1.9155	0.1637	(0.1268)	0.7515
1993	0.1280	3.0540	0.5466	0.6813	0.0508	2.0928	0.1879	(0.0801)	0.6916
1994	0.1058	3.1464	0.5440	0.6847	0.0468	1.8930	0.1545	(0.0814)	0.5428
1995	0.1144	2.9579	0.5530	0.6591	0.0387	2.3907	0.1736	(0.0763)	0.5581
1996	0.1308	3.0278	0.5467	0.6837	0.0470	2.3065	0.1913	(0.1013)	0.6033
1997	0.1489	2.2585	0.5721	0.6938	0.0414	2.6872	0.2146	(0.0796)	0.6241
1998	0.1063	2.2506	0.5639	0.7250	0.0418	1.9681	0.1467	(0.0610)	0.4205
1999	0.1381	1.7084	0.6083	0.7322	0.0280	3.1744	0.1886	(0.0346)	0.5189
2000	0.1115	4.2865	0.5312	0.6632	0.0450	2.1864	0.1681	(0.0048)	0.4106
2001	0.1133	0.0918	0.3991	0.6897	0.0554	3.0802	0.1642	0.0214	0.3602
2002	0.1079	2.2745	0.5643	0.7193	0.0293	2.8443	0.1500	(0.0048)	0.3518
2003	0.1010	1.7571	0.6168	0.6974	0.0155	4.0447	0.1448	(0.0067)	0.3500
2004	0.0993	2.7092	0.5624	0.6514	0.0213	3.6354	0.1524	0.0105	0.3418
2005	0.1215	9.4507	0.5131	0.6432	0.0379	3.0397	0.1889	(0.0061)	0.4313
2006	0.1353	#####	0.4991	0.6615	0.0566	2.3972	0.2045	(0.0940)	0.4856
2007	0.1196	11.2675	0.5087	0.7003	0.0584	1.9765	0.1708	(0.0546)	0.3511
2008	0.1865	3.7484	0.5319	0.7042	0.0521	3.1528	0.2649	(0.2041)	0.5885
2009	0.1932	3.4159	0.5480	0.6280	0.0276	5.7750	0.3076	(0.1631)	0.6078
2010	0.2115	1.6099	0.7218	0.5590	0.0054	15.1790	0.3783	(0.1955)	0.7573
2011	0.2452	0.6692	0.0784	0.4426	(0.0151)	#####	0.5541	(0.3297)	1.2279
2012	0.3194	0.2514	0.2030	0.3593	(0.0216)	(58.0023)	0.8890	(0.3256)	2.0662
Neutral tests	$m_K = M/K$	$m = M/Y$	$m_{\Pi} = M/\Pi$	$r_{(DEBT)} - r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)})/g_Y^{**}$	$r^* - r^*(US)$	$e^*(US)$	$e_{(US)}/e^*(US)$
11. Pakistan						$g_Y^{**} = g_Y/g_Y^*(US)$	$e^*(US) = e(US) - (r^* - r^*(US))$		
1990	0.6635	0.4359	3.0180	(0.139)	0.366	6.23	0.1215	21.97	0.9945
1991	0.6965	0.4355	4.3255	(0.082)	0.489	3.22	0.0718	24.73	0.9971
1992	0.7544	0.4750	4.6085	(0.087)	0.469	1.88	0.0671	25.70	0.9974
1993	0.7448	0.5074	3.9629	(0.114)	0.394	5.32	0.1011	30.15	0.9966
1994	0.7430	0.5088	4.8103	(0.084)	0.458	8.83	0.0708	30.79	0.9977
1995	0.7346	0.4841	4.2302	(0.044)	0.749	9.17	0.0903	34.34	0.9974
1996	0.7482	0.5116	3.9107	(0.061)	0.680	10.75	0.1124	40.23	0.9972
1997	0.7719	0.5356	3.5972	(0.084)	0.608	17.12	0.1425	44.19	0.9968
1998	0.7226	0.5239	4.9271	(0.099)	0.327	23.09	0.0784	45.96	0.9983
1999	0.6801	0.4980	3.6068	(0.147)	0.221	49.49	0.1226	51.91	0.9976
2000	0.6522	0.4325	3.8796	(0.127)	0.247	39.40	0.1026	58.13	0.9982
2001	0.6315	0.4355	3.8456	(0.116)	0.292	24.09	0.0885	60.95	0.9985
2002	0.6638	0.4775	4.4248	0.643	5.286	31.22	0.0551	58.59	0.9991
2003	0.7405	0.5164	5.1124	(0.111)	0.235	54.86	0.0420	57.26	0.9993
2004	0.8242	0.5369	5.4066	(0.106)	0.304	48.73	0.0488	59.17	0.9992
2005	0.8509	0.5473	4.5046	(0.127)	0.328	26.86	0.0767	59.91	0.9987
2006	0.8089	0.5350	3.9552	(0.120)	0.414	25.86	0.1104	61.03	0.9982
2007	0.8027	0.5621	4.7008	(0.076)	0.556	29.67	0.0950	61.32	0.9985
2008	0.7144	0.5031	2.6972	(0.148)	0.440	30.41	0.1808	79.28	0.9977
2009	0.7400	0.4647	2.4056	(0.180)	0.414	(8.17)	(0.7764)	83.49	1.0093
2010	0.8219	0.4595	2.1726	(0.248)	0.345	68.86	(0.7057)	85.01	1.0083
2011	0.9549	0.4226	1.7235	(0.420)	0.241	(452.5)	(0.5300)	89.44	1.0059
2012	1.2018	0.4318	1.3519	(0.772)	0.132	(613.4)	(0.1951)	96.94	1.0020

Data source: KEWT 8.14-4 for 19 Rest Area by sector, 1990-2012, whose original data are from *International Financial Statistics Yearbook*, IMF.

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

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

Cost of capit:	$\text{HA}_t^*(i)$	$r^* - \text{HA}_t^*(i)$	$v^* = r^* / (r^* - gY^*)$	$\text{CC}^*_{\text{REAL}}$	$\text{CC}^*_{\text{REAL}(G)}$	$\text{CC}^*_{\text{REAL}(PRI)}$	$\text{CC}^*_{\text{NOMINAL}}$	$\text{CC}^*_{\text{NOM}(G)}$	$\text{CC}^*_{\text{NOM}(P)}$
6. Banglad	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990	0.0756	0.0558	1.99	0.0281	(0.0039)	0.0539	0.0660	(0.0130)	0.1094
1991	0.0626	0.0480	2.36	0.0203	(0.0016)	0.0361	0.0469	(0.0051)	0.0737
1992	0.0607	0.0581	1.80	0.0323	(0.0074)	0.0642	0.0661	(0.0200)	0.1176
1993	0.0583	0.0795	1.46	0.0544	(0.0080)	0.1029	0.0942	(0.0169)	0.1649
1994	0.0525	0.0762	1.55	0.0492	0.0031	0.0835	0.0830	0.0064	0.1305
1995	0.0735	0.0595	1.71	0.0348	(0.0035)	0.0593	0.0778	(0.0079)	0.1323
1996	0.0697	0.0388	2.96	0.0131	0.0009	0.0204	0.0366	0.0027	0.0559
1997	0.0572	0.0403	3.20	0.0126	(0.0041)	0.0231	0.0304	(0.0135)	0.0496
1998	0.0526	0.0356	4.62	0.0077	(0.0018)	0.0130	0.0191	(0.0048)	0.0315
1999	0.0555	0.0299	5.63	0.0053	(0.0019)	0.0089	0.0152	(0.0061)	0.0245
2000	0.0611	0.0327	2.30	0.0142	(0.0037)	0.0244	0.0409	(0.0114)	0.0686
2001	2.7389	(2.5796)	1.02	(2.5367)	0.0069	1.0142	0.1567	(0.0070)	0.2392
2002	0.0425	0.0978	1.21	0.0808	(0.0001)	0.1898	0.1160	(0.0003)	0.1777
2003	0.0662	0.0221	3.58	0.0062	0.0007	0.0094	0.0247	0.0025	0.0392
2004	0.0681	0.0194	4.13	0.0047	(0.0030)	0.0087	0.0212	(0.0135)	0.0391
2005	0.0709	0.0156	7.27	0.0021	(0.0041)	0.0052	0.0119	(0.0237)	0.0286
2006	0.0712	0.0159	4.16	0.0038	(0.0045)	0.0083	0.0209	(0.0321)	0.0420
2007	0.0736	0.0149	3.79	0.0039	(0.0038)	0.0080	0.0234	(0.0295)	0.0439
2008	0.0763	0.0142	3.68	0.0038	(0.0014)	0.0063	0.0246	(0.0143)	0.0339
2009	0.0746	0.0166	2.64	0.0063	0.0017	0.0080	0.0346	0.0139	0.0387
2010	0.0746	0.0191	2.34	0.0081	0.0017	0.0110	0.0401	0.0127	0.0467
2011	0.0767	0.0170	3.07	0.0055	0.0019	0.0070	0.0305	0.0123	0.0369
2012	0.0781	0.0164	3.75	0.0044	0.0021	0.0051	0.0252	0.0138	0.0283
Speed years	$1/\lambda^*$	$1/\lambda_G^*$	$1/\lambda_{PRI}^*$	i_{actual}	$i_{\text{endogen.}}$	difference	Δd	$\text{SPRI} - \text{ipRI}$	bop
6. Banglad	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL
1990	37.89	25.43	191.26	0.0000	0.1011	(0.1011)	(0.0084)	(0.0502)	(0.0586)
1991	37.14	27.66	266.34	0.0000	0.0990	(0.0990)	(0.0048)	(0.0329)	(0.0377)
1992	41.46	26.11	95.70	0.0000	0.0791	(0.0791)	(0.0106)	(0.0151)	(0.0256)
1993	44.61	29.71	63.49	0.0000	0.0622	(0.0622)	(0.0088)	(0.0172)	(0.0259)
1994	41.36	33.88	55.83	0.0000	0.0641	(0.0641)	0.0012	(0.0203)	(0.0191)
1995	45.21	30.95	138.43	0.0000	0.0823	(0.0823)	(0.0047)	(0.0323)	(0.0370)
1996	38.33	29.02	29.72	0.0000	0.1156	(0.1156)	(0.0013)	(0.0496)	(0.0509)
1997	35.41	24.50	244.65	0.0000	0.1065	(0.1065)	(0.0085)	(0.0221)	(0.0307)
1998	34.19	27.09	189.98	0.1411	0.1111	0.0300	(0.0043)	(0.0144)	(0.0187)
1999	35.13	26.46	77.49	0.1562	0.1180	0.0382	(0.0052)	(0.0171)	(0.0223)
2000	44.84	30.02	233.67	0.1705	0.0907	0.0798	(0.0066)	(0.0112)	(0.0178)
2001	26.72	16.14	33.13	0.1823	0.0418	0.1405	(0.0079)	(0.0239)	(0.0318)
2002	67.94	33.87	68.81	0.1796	0.0331	0.1464	(0.0021)	(0.0001)	(0.0022)
2003	53.12	32.01	4.80	0.1691	0.1092	0.0599	(0.0013)	(0.0020)	(0.0034)
2004	50.26	25.14	6.39	0.1773	0.1166	0.0607	(0.0080)	0.0071	(0.0009)
2005	41.66	21.47	6.22	0.1833	0.1360	0.0474	(0.0123)	(0.0026)	(0.0149)
2006	46.41	19.12	11.75	0.1846	0.1206	0.0640	(0.0158)	0.0188	0.0030
2007	50.21	19.35	8.23	0.1829	0.1188	0.0641	(0.0147)	0.0206	0.0060
2008	58.17	19.67	4.79	0.1808	0.1193	0.0615	(0.0105)	0.0155	0.0050
2009	73.51	26.11	5.80	0.1811	0.1002	0.0809	0.0005	0.0211	0.0216
2010	91.44	25.59	7.34	#REF!	0.0924	#REF!	0.0000	0.0296	0.0296
2011	116.04	26.34	0.02	#REF!	0.1088	#REF!	0.0000	0.0043	0.0043
2012	137.03	25.12	0.35	#REF!	0.1193	#REF!	0.0000	(0.0054)	(0.0054)
Employment	n	$n_{\text{EQU}(G)-n}$	$n_{\text{EQU}(PRI)-n}$	$n_{\text{EQU}-n}$	$n_{\text{EQU}(G)-n}$	$n_{\text{EQU}(PRI)-n}$	Unem.rate(act)	$g_{CP}(\text{actual})$	Infla. rate
6. Banglad	under attaining equilibrium			under the same wage rate by sector			actual: to population		
1990	0.0278	0.0000	0.0000	0.0000	0.0000	0.0000	(0.0086)	0.0620	0.1042
1991	0.0277	0.0000	0.0000	0.0000	0.0403	(0.0023)	0.0000	0.0636	0.1112
1992	0.0258	0.0000	0.0000	0.0000	(0.0890)	0.0048	0.0000	0.0354	0.0919
1993	0.0251	0.0000	0.0000	0.0000	(0.1453)	0.0086	0.0000	0.0306	0.0705
1994	0.0270	0.0000	0.0000	0.0000	0.0287	(0.0020)	0.0000	0.0526	0.0688
1995	0.0247	0.0000	0.0000	0.0000	0.0534	(0.0035)	0.0000	0.0858	0.0805
1996	0.0257	0.0000	0.0000	0.0000	0.0732	(0.0046)	(0.0113)	0.0410	0.1012
1997	0.0277	0.0000	0.0000	0.0000	0.0203	(0.0012)	0.0000	0.0173	0.0997
1998	0.0279	0.0000	0.0000	0.0000	(0.0741)	0.0042	0.0000	0.0689	0.1044
1999	0.0246	0.0000	0.0000	0.0000	0.0322	(0.0020)	0.0000	0.0621	0.1114
2000	0.0184	0.0000	0.0000	0.0000	(0.0391)	0.0023	(0.0194)	0.0213	0.1223
2001	(0.0429)	0.0000	0.0000	0.0000	(0.1536)	0.0094	0.0000	0.0208	2.7379
2002	0.0169	0.0000	0.0000	0.0000	(0.0463)	0.0033	0.0000	0.0332	0.0622
2003	0.0159	0.0000	0.0000	0.0000	0.0783	(0.0059)	(0.0194)	0.0568	0.1379
2004	0.0147	0.0000	0.0000	0.0000	(0.0353)	0.0024	0.0000	0.0911	0.1281
2005	0.0135	0.0000	0.0000	0.0000	(0.0031)	0.0002	0.0000	0.0204	0.1244
2006	0.0121	0.0000	0.0000	0.0000	(0.0013)	0.0001	(0.0189)	0.0680	0.1374
2007	0.0110	0.0000	0.0000	0.0000	0.0020	(0.0001)	0.0000	0.0908	0.1451
2008	0.0103	0.0000	0.0000	0.0000	0.0448	(0.0032)	0.0000	0.0893	0.1496
2009	0.0103	0.0000	0.0000	0.0000	0.0048	(0.0003)	0.0000	0.0536	0.1294
2010	0.0109	0.0000	0.0000	0.0000	(0.0204)	0.0014	0.0000	0.0815	0.1109
2011	0.0114	0.0000	0.0000	0.0000	(0.0763)	0.0053	0.0000	0.1072	0.1155
2012	0.0120	0.0000	0.0000	0.0000	0.0211	(0.0016)	0.0000	0.0874	0.1136

Data source: KEWT 8.14-1 for 17 Europe Area by sector, 1990-2012, 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	$HA_{\beta}^*(i)$	$HA_{\beta}^*(i)G$	$HA_{\beta}^*(i)PRI$	$HA_{\Omega}^*(i)$	$HA_{\Omega}^*(i)G$	$HA_{\Omega}^*(i)PRI$	$Width_{\Omega}(i)$	$Width_{\Omega}G(i)$	$Width_{\Omega}PRI(i)$
6. Bangladesh									
1990	0.5600	0.9047	0.4467	1.8521	7.6028	1.3688	0.3720	1.3133	0.2912
1991	0.5539	0.9059	0.4401	1.8828	7.8350	1.3635	0.3779	1.3487	0.2913
1992	0.5555	0.8992	0.4429	2.0825	9.6537	1.5136	0.3969	1.6037	0.3046
1993	0.5646	0.8901	0.4542	2.5467	11.6488	1.8493	0.4649	#NUM!	0.3533
1994	0.5580	0.8901	0.4474	2.6028	10.2550	1.9257	0.4924	1.7395	0.3807
1995	0.5486	0.8895	0.4407	1.8534	10.2423	1.2190	0.3513	1.6642	0.2497
1996	0.5500	0.8942	0.4456	1.6431	7.5205	1.1226	0.3254	1.2521	0.2408
1997	0.5531	0.8973	0.4483	1.8378	7.2993	1.3644	0.3715	1.2630	0.2924
1998	0.5520	0.8879	0.4518	1.8178	7.9894	1.2671	0.3698	1.3860	0.2768
1999	0.5557	0.8904	0.4582	1.7020	7.2138	1.2089	0.3291	1.1790	0.2509
2000	0.5660	0.8889	0.4718	1.7549	8.5816	1.2319	0.2919	1.2138	0.2195
2001	0.5830	0.8830	0.4888	0.0689	3.0782	(0.2510)	#NUM!	#NUM!	0.0803
2002	0.5726	0.8765	0.4751	3.6663	7.7622	(11.1794)	0.5282	1.0560	1.3987
2003	0.5396	0.8652	0.4472	1.3962	6.5417	0.9673	0.2255	0.8696	0.1699
2004	0.5429	0.8582	0.4561	1.3647	5.8157	0.9774	0.2131	0.7498	0.1647
2005	0.5494	0.8560	0.4678	1.3293	5.4003	0.9738	0.1994	0.6685	0.1569
2006	0.5499	0.8545	0.4699	1.3364	5.1339	1.0024	0.1898	0.6043	0.1521
2007	0.5469	0.8516	0.4684	1.2987	4.9435	0.9784	0.1768	0.5558	0.1423
2008	0.5407	0.8558	0.4598	1.2494	4.1862	0.9642	0.1662	0.4563	0.1369
2009	0.5362	0.8538	0.4555	1.2672	4.2469	0.9715	0.1684	0.4631	0.1379
2010	0.5299	0.8486	0.4491	1.2676	4.1892	0.9810	0.1729	0.4701	0.1426
2011	0.5243	0.8321	0.4481	1.2078	4.1082	0.9170	0.1706	0.4754	0.1387
2012	0.5224	0.8294	0.4494	1.1864	3.9182	0.9128	0.1725	0.4659	0.1418
Key ratios	α	δ_0	β^*	Ω	$g_{\Delta}^*=(1-\beta^*)$	$x=r^*/g_{y^*}$	$r^*=\alpha/\Omega$	$r_{G}^*=\alpha_G/\Omega_G$	$r_{PRI}^*=\alpha_{PRI}/\Omega_{PRI}$
6. Bangladesh						$x=a/(i \cdot b^*)$			
1990	0.1399	0.9208	0.6888	1.0650	0.0315	2.0094	0.1314	0.0796	0.1659
1991	0.1179	0.9190	0.6869	1.0657	0.0310	1.7345	0.1106	0.0812	0.1302
1992	0.1264	0.9302	0.7098	1.0644	0.0229	2.2531	0.1188	0.0496	0.1648
1993	0.1484	0.9337	0.7540	1.0771	0.0153	3.1636	0.1378	0.0362	0.2052
1994	0.1366	0.9473	0.7559	1.0614	0.0157	2.8178	0.1287	0.0623	0.1727
1995	0.1363	0.9692	0.6874	1.0246	0.0257	2.4084	0.1330	0.0479	0.1873
1996	0.1145	0.9165	0.6556	1.0552	0.0398	1.5101	0.1085	0.0791	0.1264
1997	0.1050	0.8998	0.6785	1.0777	0.0342	1.4540	0.0975	0.0785	0.1090
1998	0.0956	0.8889	0.6738	1.0840	0.0362	1.2763	0.0882	0.0699	0.0989
1999	0.0944	0.8468	0.6582	1.1056	0.0403	1.2159	0.0854	0.0740	0.0918
2000	0.1072	0.8071	0.6669	1.1433	0.0302	1.7717	0.0938	0.0453	0.1204
2001	0.1888	1.0676	0.0752	1.1850	0.0386	60.1215	0.1593	0.0363	0.2291
2002	0.1560	0.9287	0.8154	1.1118	0.0061	5.7765	0.1403	0.0503	0.1935
2003	0.0925	0.8971	0.6098	1.0470	0.0426	1.3882	0.0883	0.0572	0.1054
2004	0.0930	0.8583	0.6042	1.0618	0.0461	1.3197	0.0876	0.0531	0.1054
2005	0.0943	0.7837	0.5980	1.0897	0.0547	1.1594	0.0865	0.0536	0.1025
2006	0.0951	0.7805	0.5992	1.0923	0.0483	1.3166	0.0871	0.0542	0.1028
2007	0.0956	0.7939	0.5921	1.0799	0.0485	1.3588	0.0885	0.0559	0.1038
2008	0.0954	0.8420	0.5825	1.0540	0.0498	1.3728	0.0905	0.0938	0.0889
2009	0.0945	0.8979	0.5857	1.0360	0.0415	1.6100	0.0912	0.0963	0.0888
2010	0.0946	0.9722	0.5860	1.0097	0.0382	1.7473	0.0936	0.0948	0.0931
2011	0.0926	1.0382	0.5738	0.9887	0.0464	1.4840	0.0937	0.0849	0.0977
2012	0.0927	1.0706	0.5696	0.9804	0.0514	1.3639	0.0946	0.0929	0.0953
Neutrality tests	$m_K=M/K$	$m=M/Y$	$m_{PI}=M/PI$	$r_{(DEBT)}-r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)})/g_{y^*}$	$r^*-r^*(US)$	$e^*(US)$	$e^*(US)/e^*(US)$
6. Bangladesh						$g_{y^*}=g_{y^*}/g_{y^*}(US)$		$e^*(US)=e(US)+(r^*-r^*(US))$	
1990	0.2413	0.2570	1.836	0.029	1.218	9.55	0.0330	35.823	0.9991
1991	0.2487	0.2651	2.248	0.049	1.439	9.24	0.0214	38.601	0.9994
1992	0.2579	0.2745	2.171	0.031	1.263	11.10	0.0222	39.022	0.9994
1993	0.2684	0.2891	1.948	0.012	1.089	32.94	0.0510	39.901	0.9987
1994	0.3008	0.3193	2.337	0.016	1.127	44.63	0.0450	40.295	0.9989
1995	0.3103	0.3180	2.334	0.007	1.053	24.66	0.0496	40.800	0.9988
1996	0.3060	0.3229	2.821	0.032	1.291	19.98	0.0295	42.480	0.9993
1997	0.3027	0.3262	3.106	0.043	1.437	31.20	0.0254	45.475	0.9994
1998	0.3026	0.3280	3.432	0.052	1.588	38.10	0.0199	48.520	0.9996
1999	0.3121	0.3451	3.655	0.056	1.655	45.13	0.0194	51.019	0.9996
2000	0.3427	0.3918	3.654	0.061	1.653	68.09	0.0282	54.028	0.9995
2001	0.3792	0.4493	2.380	(0.001)	0.994	35.33	0.0836	57.084	0.9985
2002	0.4167	0.4633	2.970	0.020	1.140	168.37	0.0454	57.945	0.9992
2003	0.4222	0.4421	4.780	0.072	1.812	26.73	(0.0146)	58.767	1.0002
2004	0.4372	0.4642	4.992	0.060	1.684	29.66	(0.0161)	60.726	1.0003
2005	0.4483	0.4885	5.182	0.053	1.618	26.47	(0.0257)	66.184	1.0004
2006	0.4878	0.5328	5.601	0.066	1.760	40.67	(0.0109)	69.054	1.0002
2007	0.4969	0.5366	5.614	0.071	1.808	32.36	(0.0123)	68.564	1.0002
2008	0.5195	0.5476	5.740	0.073	1.810	20.83	(0.0243)	68.896	1.0004
2009	0.5662	0.5866	6.206	0.055	1.600	(0.01)	(0.0377)	69.229	1.0005
2010	0.6259	0.6319	6.683	0.036	1.388	4.60	(0.0367)	70.713	1.0005
2011	0.6633	0.6559	7.082	0.039	1.415	(4.46)	(0.0367)	81.816	1.0004
2012	0.6934	0.6798	7.333	0.035	1.375	2.37	(0.0358)	79.814	1.0004

Data source: KEWT 8.14-1 for 17 Europe Area by sector, 1990-2012, whose original data are from *International Financial Statistics Yearbook*, IMF.

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

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

Cost of capit:	$HA_r^*(i)$	$r^* - HA_r^*(i)$	$v^* = r^*/(r^* - gY^*)$	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	0.2432	0.0177	2.49	0.0071	0.0038	0.0078	0.1046	0.0447	0.1206
1991	0.2203	0.0173	2.59	0.0067	0.0040	0.0072	0.0916	0.0448	0.1034
1992	0.2316	0.0236	2.29	0.0103	0.0022	0.0120	0.1113	0.0215	0.1328
1993	0.1438	0.0241	2.72	0.0089	0.0060	0.0096	0.0618	0.0469	0.0652
1994	0.1396	0.0236	2.93	0.0080	0.0066	0.0083	0.0556	0.0559	0.0548
1995	0.1213	0.0193	4.85	0.0040	0.0125	0.0019	0.0290	0.0911	0.0139
1996	0.1180	0.0158	4.51	0.0035	0.0056	0.0025	0.0296	0.0636	0.0196
1997	0.1390	0.0160	3.53	0.0045	0.0002	0.0057	0.0439	0.0016	0.0541
1998	0.0963	0.0244	2.33	0.0105	(0.0083)	0.0214	0.0518	(0.0853)	0.0835
1999	0.0538	0.0194	3.44	0.0056	(0.0043)	0.0097	0.0212	(0.0268)	0.0319
2000	0.1400	0.1046	2.06	0.0508	(0.0780)	0.0810	0.1188	(0.1592)	0.1946
2001	0.2588	(0.0167)	1.67	(0.0100)	0.0089	(0.0130)	0.1447	(0.0849)	0.2020
2002	0.1124	0.0249	2.38	0.0105	(0.0063)	0.0146	0.0576	(0.0370)	0.0797
2003	0.0804	0.0231	2.68	0.0086	(0.0077)	0.0143	0.0386	(0.0504)	0.0587
2004	0.0845	0.0249	2.38	0.0105	(0.0080)	0.0154	0.0460	(0.0392)	0.0663
2005	0.1308	0.0205	3.37	0.0061	0.0016	0.0070	0.0449	0.0090	0.0540
2006	0.1513	0.0242	2.46	0.0098	(0.0032)	0.0122	0.0713	(0.0193)	0.0908
2007	0.1397	0.0218	2.92	0.0074	(0.0012)	0.0090	0.0552	(0.0080)	0.0682
2008	0.1965	0.0223	2.73	0.0082	(0.0014)	0.0109	0.0801	(0.0177)	0.0998
2009	0.1937	0.0237	2.41	0.0099	(0.0027)	0.0125	0.0904	(0.0243)	0.1146
2010	0.1945	0.0210	2.77	0.0076	0.0014	0.0086	0.0779	0.0115	0.0912
2011	0.1915	0.0191	3.10	0.0062	(0.0011)	0.0074	0.0678	(0.0110)	0.0830
2012	0.1726	0.0162	4.43	0.0037	(0.0024)	0.0047	0.0426	(0.0264)	0.0556
Speed years	$1/\lambda^*$	$1/\lambda_G^*$	$1/\lambda_{PRI}^*$	i_{actual}	$i_{endoge.}$	difference	Δd	$SPRI - i_{PRI}$	bop
9. Indones	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL
1990	23.87	20.85	25.16	0.2631	0.3411	(0.0780)	0.0042	(0.0495)	(0.0453)
1991	23.04	21.02	23.80	0.2615	0.3315	(0.0700)	0.0044	(0.0484)	(0.0440)
1992	26.71	18.44	29.18	0.2515	0.3360	(0.0845)	(0.0043)	(0.0186)	(0.0230)
1993	23.12	21.90	23.65	0.2365	0.2587	(0.0223)	0.0068	(0.0159)	(0.0091)
1994	22.35	22.85	22.80	0.2508	0.2638	(0.0130)	0.0104	(0.0275)	(0.0171)
1995	19.48	28.85	18.28	0.2603	0.2763	(0.0160)	0.0247	(0.0722)	(0.0475)
1996	20.09	23.88	20.25	0.2734	0.2597	0.0137	0.0129	(0.0495)	(0.0366)
1997	20.61	19.36	21.64	0.2590	0.2742	(0.0152)	(0.0075)	(0.0281)	(0.0356)
1998	32.81	11.10	52.45	0.2270	0.1379	0.0891	(0.0328)	0.0785	0.0457
1999	40.37	18.39	59.84	0.1682	0.0998	0.0684	(0.0128)	0.0180	0.0052
2000	21.88	8.93	27.35	0.1650	0.1992	(0.0342)	(0.0444)	0.0876	0.0432
2001	41.46	12.22	2478.08	0.1594	0.1898	(0.0304)	(0.0249)	0.0744	0.0496
2002	33.57	17.34	48.76	0.1568	0.1506	0.0061	(0.0141)	0.0500	0.0359
2003	36.25	15.21	50.59	0.1594	0.1236	0.0358	(0.0193)	0.0577	0.0384
2004	38.62	19.65	52.71	0.1939	0.1188	0.0750	(0.0145)	0.0613	0.0468
2005	26.82	21.86	33.87	0.2071	0.2027	0.0044	(0.0039)	(0.0041)	(0.0080)
2006	30.05	18.63	38.21	0.2125	0.1951	0.0175	(0.0109)	0.0237	0.0128
2007	27.50	18.62	32.94	0.2216	0.2020	0.0196	(0.0088)	0.0081	(0.0008)
2008	25.40	13.01	31.32	0.2522	0.2606	(0.0084)	(0.0196)	(0.0081)	(0.0278)
2009	25.04	14.55	28.76	0.2900	0.2489	0.0410	(0.0173)	0.0096	(0.0077)
2010	21.98	18.16	23.24	0.3004	0.2834	0.0170	(0.0068)	(0.0057)	(0.0126)
2011	20.43	15.03	21.76	0.3004	0.3092	(0.0088)	(0.0144)	(0.0017)	(0.0161)
2012	18.21	13.75	19.20	0.2706	0.3446	(0.0741)	(0.0197)	(0.0298)	(0.0495)
Employment	n	$n_{EQU(G)-n}$	$n_{EQU(PRI)-n}$	n_{EQU-n}	$n_{EQU(G)-n}$	$n_{EQU(PRI)-n}$	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	0.0000	0.0000	0.0000	0.0000	(0.0113)	0.0793	0.1906
1991	0.0106	0.0000	0.0000	0.0000	0.0213	(0.0045)	(0.0117)	0.0934	0.2380
1992	0.0133	0.0000	0.0000	0.0000	(0.1746)	0.0364	(0.0122)	0.0756	0.2167
1993	0.0152	0.0000	0.0000	0.0000	0.2829	(0.0716)	(0.0126)	0.0964	0.1818
1994	0.0155	0.0000	0.0000	0.0000	0.1122	(0.0191)	(0.0198)	0.0855	0.1540
1995	0.0153	0.0000	0.0000	0.0000	0.0952	(0.0142)	0.0000	0.0941	0.1692
1996	0.0123	0.0000	0.0000	0.0000	0.0520	(0.0069)	(0.0180)	0.0818	0.1764
1997	0.0115	0.0000	0.0000	0.0000	0.0478	(0.0060)	(0.0212)	0.0609	0.2022
1998	0.0140	0.0000	0.0000	0.0000	0.2932	(0.0348)	(0.0248)	0.5842	0.2971
1999	0.0138	0.0000	0.0000	0.0000	(0.0723)	0.0059	(0.0288)	0.2050	0.2572
2000	0.0538	0.0000	0.0000	0.0000	(0.2851)	0.0251	(0.0275)	0.0373	0.0800
2001	(0.0067)	0.0000	0.0000	0.0000	(0.0194)	0.0022	(0.0365)	0.1150	0.2022
2002	0.0145	0.0000	0.0000	0.0000	0.0976	(0.0114)	(0.0410)	0.1184	0.1646
2003	0.0145	0.0000	0.0000	0.0000	(0.0833)	0.0087	(0.0428)	0.0666	0.1463
2004	0.0144	0.0000	0.0000	0.0000	(0.0417)	0.0048	(0.0446)	0.0624	0.1163
2005	0.0144	0.0000	0.0000	0.0000	(0.0346)	0.0041	(0.0504)	0.1050	0.1200
2006	0.0144	0.0000	0.0000	0.0000	(0.1024)	0.0127	(0.0464)	0.1310	0.1356
2007	0.0143	0.0000	0.0000	0.0000	0.0504	(0.0070)	(0.0410)	0.0637	0.1168
2008	0.0142	0.0000	0.0000	0.0000	(0.1119)	0.0146	(0.0365)	0.1006	0.1137
2009	0.0139	0.0000	0.0000	0.0000	(0.1745)	0.0256	(0.0333)	0.0461	0.1213
2010	0.0134	0.0000	0.0000	0.0000	0.0213	(0.0038)	(0.0320)	0.0513	0.1115
2011	0.0130	0.0000	0.0000	0.0000	(0.0154)	0.0027	(0.0302)	0.0536	0.1049
2012	0.0126	0.0000	0.0000	0.0000	0.0113	(0.0020)	(0.0279)	0.0430	0.1018

Data source: KEWT 8.14-1 for 17 Europe Area by sector, 1990-2012, whose original data are from *International Financial Statistics Yearbook*, IMF.

Chapter 11

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 $_{\Omega}^*$ (i)G	HA $_{\Omega}^*$ (i)PRI	Width $_{\Omega}(i)$	Width $_{\Omega}(i)G$	Width $_{\Omega}(i)PRI$
9. Indonesia		G	PRI		G	PRI		G	PRI
1990	0.7471	0.7764	0.7398	1.7788	2.3841	1.6683	0.2099	0.2757	0.1979
1991	0.7481	0.7726	0.7423	1.8665	2.3783	1.7728	0.2206	0.2763	0.2103
1992	0.7833	0.7755	0.7852	2.0579	2.5125	1.9720	0.2653	0.3250	0.2540
1993	0.7328	0.7855	0.7211	2.1696	2.5950	2.0892	0.3068	0.3564	0.2974
1994	0.7316	0.8071	0.7150	2.1823	2.6315	2.0998	0.3118	0.3610	0.3028
1995	0.7169	0.8081	0.6977	2.1397	2.6145	2.0493	0.3065	0.3550	0.2971
1996	0.7112	0.8171	0.6886	2.0815	2.5401	1.9991	0.2692	0.3094	0.2620
1997	0.7212	0.8297	0.6984	2.0427	3.3792	1.8602	0.2542	0.3945	0.2349
1998	0.6186	0.8229	0.5789	1.6809	4.0168	1.5344	0.2426	0.5186	0.2251
1999	0.5856	0.7954	0.5445	1.7215	3.7235	1.5534	0.2490	0.4818	0.2292
2000	0.6416	0.7870	0.6113	2.0966	8.3125	1.7242	0.5585	2.0564	0.4682
2001	0.6214	0.7533	0.5961	1.1042	2.9746	0.9597	#NUM!	#NUM!	#NUM!
2002	0.5972	0.7500	0.5697	1.4876	3.1241	1.3251	0.2230	0.4248	0.2027
2003	0.5901	0.7343	0.5631	1.5925	2.8743	1.4605	0.2376	0.3951	0.2213
2004	0.5874	0.7229	0.5618	1.5744	2.9846	1.4169	0.2346	0.4091	0.2149
2005	0.6003	0.7130	0.5798	1.3990	2.4392	1.2769	0.2109	0.3379	0.1958
2006	0.6066	0.6880	0.5919	1.3919	2.2684	1.2864	0.2085	0.3195	0.1950
2007	0.6055	0.6886	0.5913	1.4056	2.1712	1.3126	0.2103	0.3055	0.1987
2008	0.6310	0.7020	0.6175	1.3715	1.8113	1.3081	0.2015	0.2543	0.1939
2009	0.6563	0.6889	0.6498	1.4998	2.0137	1.4231	0.2139	0.2808	0.2040
2010	0.6802	0.7044	0.6757	1.6015	2.0871	1.5314	0.2215	0.2829	0.2126
2011	0.7027	0.7175	0.6999	1.7207	2.1442	1.6579	0.2305	0.2841	0.2226
2012	0.7264	0.7397	0.7239	1.9183	2.3418	1.8552	0.2492	0.3015	0.2214
Key ratios	α	δ_0	β^*	Ω	$g_A^*=(1-\beta^*)$	$x=r^*/g_Y^*$ $x=a/(i \cdot b^*)$	$r^*=\alpha/\Omega$	$r_G^*=\alpha_G/\Omega_G$	$r_{PRI}^*=\alpha_{PRI}/\Omega_{PRI}$
9. Indonesia							G	PRI	
1990	0.4327	0.5614	0.7601	1.6584	0.0818	1.6691	0.2609	0.1679	0.2852
1991	0.4111	0.5290	0.7621	1.7304	0.0789	1.6275	0.2376	0.1642	0.2556
1992	0.4765	0.5480	0.7993	1.8678	0.0674	1.7741	0.2551	0.1504	0.2802
1993	0.3121	0.4676	0.7620	1.8581	0.0616	1.5828	0.1679	0.1652	0.1686
1994	0.3046	0.4614	0.7612	1.8669	0.0630	1.5170	0.1631	0.1880	0.1570
1995	0.2596	0.4303	0.7458	1.8463	0.0702	1.2595	0.1406	0.2024	0.1256
1996	0.2456	0.4088	0.7364	1.8354	0.0685	1.2845	0.1338	0.2047	0.1159
1997	0.2839	0.4290	0.7426	1.8314	0.0706	1.3946	0.1550	0.1201	0.1638
1998	0.1619	0.5869	0.6704	1.3407	0.0455	1.7508	0.1207	0.0577	0.1381
1999	0.0925	0.6405	0.6579	1.2650	0.0341	1.4091	0.0732	0.0591	0.0772
2000	0.2936	0.8399	0.7577	1.2002	0.0483	1.9447	0.2446	(0.0494)	0.3237
2001	0.2857	0.6138	0.6056	1.1801	0.0748	2.4862	0.2421	(0.0210)	0.3058
2002	0.1672	0.6691	0.6444	1.2174	0.0536	1.7223	0.1373	0.0478	0.1585
2003	0.1281	0.6544	0.6495	1.2375	0.0433	1.5949	0.1035	0.0439	0.1181
2004	0.1330	0.6792	0.6482	1.2165	0.0418	1.7271	0.1094	0.0317	0.1282
2005	0.1830	0.6556	0.6347	1.2095	0.0741	1.4224	0.1513	0.0902	0.1650
2006	0.2107	0.6867	0.6414	1.1999	0.0700	1.6835	0.1756	0.0679	0.1982
2007	0.1963	0.6586	0.6395	1.2162	0.0728	1.5196	0.1614	0.0854	0.1766
2008	0.2695	0.6765	0.6556	1.2316	0.0897	1.5771	0.2188	0.1674	0.2298
2009	0.2905	0.6200	0.6819	1.3360	0.0792	1.7116	0.2174	0.1008	0.2421
2010	0.3115	0.5705	0.7021	1.4452	0.0844	1.5654	0.2155	0.1209	0.2342
2011	0.3295	0.5315	0.7222	1.5645	0.0859	1.4752	0.2106	0.1192	0.2281
2012	0.3311	0.4731	0.7438	1.7536	0.0883	1.2915	0.1888	0.1129	0.2030
Neutral tests	$m_K=M/K$	$m=M/Y$	$m_{PI}=M/PI$	$r_{(DEBT)}-r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)})/g_Y^{**}$	$r^*-r^*(US)$	$e^*(US)$	$e^*(US)/e^*(US)$
9. Indonesia					$g_Y^{**}=g_Y^*/g_Y^*(US)$		$e^*(US)=e(US)+(r^*-r^*(US))$		
1990	0.2689	0.4459	1.031	(0.053)	0.798	128.7	0.1626	1901	0.9999
1991	0.2554	0.4419	1.075	0.018	1.074	125.1	0.1484	1992	0.9999
1992	0.2508	0.4684	0.983	(0.015)	0.942	119.7	0.1586	2062	0.9999
1993	0.2596	0.4823	1.546	0.038	1.226	350.1	0.0812	2110	1.0000
1994	0.2674	0.4993	1.639	0.014	1.089	488.4	0.0795	2200	1.0000
1995	0.2948	0.5443	2.097	0.048	1.341	438.6	0.0572	2308	1.0000
1996	0.3281	0.6022	2.452	0.058	1.436	555.9	0.0549	2383	1.0000
1997	0.3437	0.6295	2.217	0.063	1.407	1239	0.0830	4650	1.0000
1998	0.5007	0.6712	4.146	0.201	2.663	4657	0.0525	8025	1.0000
1999	0.5161	0.6529	7.055	0.203	3.781	7418	0.0072	7085	1.0000
2000	0.4976	0.5972	2.034	(0.060)	0.755	5995	0.1790	9595	1.0000
2001	0.4718	0.5568	1.949	(0.057)	0.766	2928	0.1664	10400	1.0000
2002	0.4330	0.5271	3.153	0.052	1.380	2928	0.0424	8940	1.0000
2003	0.4214	0.5215	4.072	0.066	1.637	3637	0.0006	8465	1.0000
2004	0.4113	0.5004	3.761	0.032	1.291	4786	0.0057	9290	1.0000
2005	0.3983	0.4817	2.632	(0.011)	0.928	2616	0.0391	9830	1.0000
2006	0.3834	0.4600	2.184	(0.016)	0.910	3202	0.0776	9020	1.0000
2007	0.3815	0.4639	2.363	(0.023)	0.859	2628	0.0606	9419	1.0000
2008	0.3456	0.4257	1.580	(0.083)	0.622	1483	0.1040	10950	1.0000
2009	0.3177	0.4244	1.461	(0.072)	0.667	(0.71)	0.0885	9400	1.0000
2010	0.2947	0.4259	1.367	(0.083)	0.615	201.4	0.0852	8991	1.0000
2011	0.2753	0.4307	1.307	(0.087)	0.589	(197.0)	0.0802	9068	1.0000
2012	0.2540	0.4455	1.346	(0.071)	0.625	123.1	0.0585	9670	1.0000

Data source: KEWT 8.14-1 for 17 Europe Area by sector, 1990-2012, whose original data are from *International Financial Statistics Yearbook*, IMF.

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

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

Cost of capit:	$HA_{t+1}(i)$	$r^* - HA_{t+1}(i)$	$v^* = r^* / (r^* - g_{Y^*})$	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	0.1114	0.0266	7.34	0.0036	(0.0184)	0.0412	0.0188	(0.0687)	0.2481
1991	0.0892	0.0652	2.23	0.0293	(0.0242)	0.1067	0.0693	(0.0465)	0.2777
1992	0.1090	0.0626	1.71	0.0367	(0.0115)	0.0939	0.1006	(0.0241)	0.2878
1993	0.1339	0.0477	1.76	0.0271	(0.0130)	0.0616	0.1034	(0.0321)	0.2740
1994	0.1130	0.0504	1.75	0.0288	0.0152	0.0435	0.0934	0.0427	0.1492
1995	0.1360	0.0282	1.76	0.0160	0.0069	0.0242	0.0932	0.0328	0.1522
1996	0.1107	0.0513	1.86	0.0276	0.0090	0.0418	0.0872	0.0215	0.1450
1997	0.1198	0.0424	1.95	0.0217	0.0049	0.0306	0.0831	0.0079	0.1432
1998	0.0424	0.1609	1.28	0.1255	(0.0859)	0.2123	0.1586	(0.0714)	0.3035
1999	(1.2223)	1.4120	1.01	1.3912	(0.3121)	#####	0.1869	(0.1577)	0.4052
2000	(4.4103)	4.5855	1.00	4.5651	(0.4166)	(3.7857)	0.1744	(0.1916)	0.4177
2001	0.0799	0.0917	1.29	0.0710	(0.1017)	0.1779	0.1328	(0.1816)	0.3378
2002	0.0678	0.0920	1.29	0.0712	(0.1558)	0.2060	0.1236	(0.2564)	0.3638
2003	0.1061	0.0410	1.99	0.0206	(0.0692)	0.0623	0.0740	(0.2066)	0.2345
2004	0.1035	0.0467	1.73	0.0269	(0.0489)	0.0703	0.0867	(0.1693)	0.2212
2005	0.1007	0.0455	1.71	0.0266	(0.0540)	0.0562	0.0855	(0.1297)	0.1923
2006	0.1169	0.0591	1.44	0.0410	(0.0101)	0.0677	0.1222	(0.0348)	0.1936
2007	0.1202	0.0677	1.34	0.0504	(0.0085)	0.0656	0.1399	(0.0096)	0.2078
2008	0.0893	0.0899	1.23	0.0731	(0.0236)	0.1243	0.1458	(0.0615)	0.2307
2009	0.3240	(0.0806)	0.83	(0.0974)	(0.5648)	(0.1455)	0.2942	(0.2539)	0.5690
2010	0.4933	(0.2575)	0.94	(0.2744)	(0.1725)	(0.3653)	0.2512	(0.2435)	0.5500
2011	8.4326	(8.1323)	1.00	(8.1496)	(0.1135)	(1.7448)	0.3009	(0.1315)	0.5980
2012	0.7040	(0.2812)	0.94	(0.2986)	(0.1041)	(0.4305)	0.4491	(0.1494)	1.0049
Speed years	$1/\lambda^*$	$1/\lambda_G^*$	$1/\lambda_{PRI}^*$	i_{actual}	$i_{endoge.}$	difference	Δd	SPRI- i_{PRI}	bop
13. Philipp	in equilibri	G	PRI	actual	endogenous		G	PRI	TOTAL
1990	1.39	15.26	6.59	0.1862	0.1666	0.0196	(0.0384)	(0.0317)	(0.0700)
1991	61.84	19.76	7.36	0.1614	0.1011	0.0603	(0.0235)	(0.0039)	(0.0273)
1992	52.73	26.09	8.43	0.1685	0.0901	0.0784	(0.0131)	(0.0221)	(0.0353)
1993	26.54	26.49	7.42	0.1915	0.1092	0.0823	(0.0165)	(0.0509)	(0.0674)
1994	46.04	31.44	7.31	0.1904	0.0954	0.0950	0.0119	(0.0534)	(0.0415)
1995	9.92	31.08	8.89	0.1789	0.1067	0.0722	0.0065	(0.0627)	(0.0563)
1996	95.62	30.07	3.92	0.1887	0.1030	0.0857	0.0032	(0.0551)	(0.0519)
1997	65.74	42.36	2.75	0.1967	0.1151	0.0816	0.0007	(0.0691)	(0.0684)
1998	35.01	18.73	32.16	0.1704	0.0432	0.1271	(0.0208)	0.0043	(0.0165)
1999	78.89	36.31	101.86	0.1538	(0.0133)	0.1671	(0.0417)	0.1029	0.0612
2000	110.76	29.95	294.21	0.1706	(0.0167)	0.1873	(0.0451)	0.1362	0.0911
2001	355.27	13.80	66.08	0.1445	0.0391	0.1054	(0.0450)	0.0850	0.0401
2002	503.09	12.77	188.50	0.1419	0.0347	0.1072	(0.0595)	0.1256	0.0661
2003	0.94	15.41	8.65	0.1357	0.0928	0.0429	(0.0515)	0.0666	0.0151
2004	2.32	15.08	9.24	0.1297	0.0792	0.0505	(0.0427)	0.0879	0.0453
2005	3.48	25.24	8.76	0.1161	0.0763	0.0397	(0.0300)	0.0751	0.0451
2006	5.42	25.60	9.09	0.1088	0.0649	0.0439	(0.0115)	0.0927	0.0813
2007	11.10	58.78	8.72	0.1143	0.0567	0.0577	(0.0020)	0.0987	0.0967
2008	96.11	20.63	199.17	0.1138	0.0345	0.0793	(0.0134)	0.1208	0.1074
2009	29.36	9.91	10.80	0.1134	(0.0833)	0.1968	(0.0418)	0.1859	0.1441
2010	533.58	10.95	20.18	0.0000	(0.0349)	0.0349	(0.0384)	0.1704	0.1319
2011	86.55	22.38	67.69	0.0000	(0.0159)	0.0159	(0.0195)	0.1100	0.0905
2012	71.30	31.10	22.67	0.0000	(0.0452)	0.0452	(0.0217)	0.1277	0.1061
Employment	n	NEQUI(G)-n	NEQUI(PRI)-n	NEQUI-n	NEQUI(G)- n_G	NEQUI(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	0.2146
1991	0.0359	0.0000	0.0000	0.0000	0.0036	(0.0005)	(0.0405)	0.1852	0.1655
1992	0.0259	0.0000	0.0000	0.0000	0.0074	(0.0010)	(0.0387)	0.0856	0.1322
1993	0.0205	0.0000	0.0000	0.0000	(0.0683)	0.0095	(0.0401)	0.0688	0.0992
1994	0.0216	0.0000	0.0000	0.0000	(0.0507)	0.0076	(0.0378)	0.0843	0.1002
1995	0.0122	0.0000	0.0000	0.0000	(0.0599)	0.0095	(0.0428)	0.0799	(0.1143)
1996	0.0236	0.0000	0.0000	0.0000	(0.0496)	0.0084	(0.0387)	0.0751	0.0886
1997	0.0207	0.0000	0.0000	0.0000	(0.1124)	0.0202	(0.0392)	0.0559	0.0877
1998	0.0354	0.0000	0.0000	0.0000	(0.0437)	0.0089	(0.0464)	0.0927	0.0189
1999	0.0208	0.0000	0.0000	0.0000	0.0510	(0.0109)	(0.0441)	0.0595	(1.2887)
2000	0.0204	0.0000	0.0000	0.0000	0.0301	(0.0061)	(0.0504)	0.0395	(4.4678)
2001	0.0207	0.0000	0.0000	0.0000	0.0687	(0.0133)	(0.0500)	0.0680	0.0423
2002	0.0208	0.0000	0.0000	0.0000	0.0703	(0.0126)	(0.0513)	0.0300	(0.0051)
2003	0.0204	0.0000	0.0000	0.0000	0.0421	(0.0069)	(0.0513)	0.0345	0.0461
2004	0.0197	0.0000	0.0000	0.0000	0.0852	(0.0133)	(0.0531)	0.0598	0.0560
2005	0.0189	0.0000	0.0000	0.0000	0.0425	(0.0060)	(0.0513)	0.0764	0.0411
2006	0.0181	0.0000	0.0000	0.0000	0.0126	(0.0017)	(0.0356)	0.0550	0.0148
2007	0.0173	0.0000	0.0000	0.0000	0.0046	(0.0006)	(0.0329)	0.0284	(0.0143)
2008	0.0168	0.0000	0.0000	0.0000	0.0619	(0.0082)	(0.0333)	0.0829	(0.0024)
2009	0.0168	0.0000	0.0000	0.0000	(0.1342)	0.0166	(0.0338)	0.0417	0.1663
2010	0.0169	0.0000	0.0000	0.0000	0.0413	(0.0059)	(0.0333)	0.0384	0.3343
2011	0.0172	0.0000	0.0000	0.0000	0.0025	(0.0003)	(0.0315)	0.0464	8.1990
2012	0.0175	0.0000	0.0000	0.0000	(0.1014)	0.0137	(0.0315)	0.0316	0.3380

Data source: KEWT 8.14-1 for 17 Europe Area by sector, 1990-2012, whose original data are from *International Financial Statistics Yearbook*, IMF.

Chapter 11

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 _B * ⁽ⁱ⁾	HA _B * ^{(i)G}	HA _B * ^{(i)PRI}	HA _Ω * ⁽ⁱ⁾	HA _{ΩG} * ^{(i)G}	HA _{ΩPRI} * ^{(i)PRI}	Width _{Ω(i)}	Width _{ΩG(i)G}	Width _{ΩPRI(i)PRI}
13. Philippines		G	PRI		G	PRI		G	PRI
1990	0.4352	0.8070	0.2237	0.8451	5.2241	0.3046	0.1833	0.8581	0.0911
1991	0.4445	0.8012	0.2566	1.1946	7.4599	0.4815	0.2972	1.4961	0.1523
1992	0.4602	0.8014	0.2897	1.1450	6.7354	0.5148	0.2435	1.1521	0.1350
1993	0.4796	0.7887	0.3327	1.0519	5.7548	0.5348	0.2021	0.8874	0.1224
1994	0.4740	0.7668	0.3428	1.1152	3.7391	0.6470	0.2179	0.6010	0.1460
1995	0.4794	0.7475	0.3646	0.9557	2.9314	0.5968	0.1454	0.3641	0.1034
1996	0.4839	0.7289	0.3837	1.1671	3.7400	0.7507	0.2360	0.6343	0.1690
1997	0.4943	0.6937	0.4171	1.1226	5.2622	0.7634	0.2139	0.8188	0.1591
1998	0.4966	0.6805	0.4258	3.8292	(11.0564)	1.9006	0.7929	1.9782	0.4239
1999	0.4522	0.6578	0.3769	(0.1088)	(2.6607)	0.0008	#NUM!	0.2686	0.0035
2000	0.4087	0.6308	0.3305	(0.0240)	(2.0525)	0.0400	#NUM!	0.1638	0.0264
2001	0.4050	0.6388	0.3272	1.2859	5.2559	0.8531	0.2402	0.8455	0.1725
2002	0.3962	0.6424	0.3191	1.3735	7.3655	0.8940	0.2542	1.1727	0.1789
2003	0.4139	0.6520	0.3436	0.8711	3.7692	0.6025	0.1768	0.6264	0.1333
2004	0.4175	0.6669	0.3484	0.9224	3.4405	0.6690	0.1815	0.5627	0.1418
2005	0.4208	0.6649	0.3577	0.9376	3.9904	0.6771	0.1798	0.6237	0.1402
2006	0.4168	0.6594	0.3558	0.9407	2.5428	0.7364	0.1756	0.3996	0.1460
2007	0.4188	0.6455	0.3651	0.9770	15.3862	0.7192	0.1765	2.0853	0.1399
2008	0.4027	0.6447	0.3479	1.1888	2.9942	1.0000	0.2030	0.4487	0.1768
2009	0.3596	0.6103	0.2952	0.3656	(2.0259)	0.2717	0.0871	0.1226	0.0705
2010	0.3093	0.5931	0.2373	0.1906	7.1747	0.1584	0.0590	1.0208	0.0518
2011	0.2866	0.5834	0.2106	0.0126	11.8909	0.0579	0.0139	1.6353	0.0301
2012	0.2442	0.5512	0.1574	0.1681	4.6828	0.1092	0.0551	0.6910	0.0424
Key ratios	α	δ₀	β*	Ω	g_A=(1-β*)	x=r*/g_Y* x=a/(i·b*)	r*=α/Ω	r_G*=α_G/Ω_G	r_{PRI}*=α_{PRI}/Ω_{PRI}
13. Philippines							G	G	PRI
1990	0.0942	(7.1837)	0.4883	0.6823	0.0852	1.1578	0.1380	0.0169	0.3865
1991	0.1066	2.1387	0.5807	0.6901	0.0424	1.8144	0.1544	0.0226	0.3712
1992	0.1248	2.0820	0.5730	0.7273	0.0385	2.4163	0.1716	0.0301	0.3672
1993	0.1409	2.1396	0.5555	0.7758	0.0485	2.3235	0.1816	0.0186	0.3652
1994	0.1260	1.9805	0.5659	0.7711	0.0414	2.3343	0.1634	0.1036	0.2233
1995	0.1300	3.2045	0.5265	0.7916	0.0505	2.3140	0.1642	0.0905	0.2288
1996	0.1291	1.7150	0.5784	0.7977	0.0434	2.1681	0.1619	0.0781	0.2270
1997	0.1345	1.6685	0.5697	0.8290	0.0495	2.0502	0.1622	0.0416	0.2399
1998	0.1622	1.1451	0.8256	0.7981	0.0075	4.5462	0.2033	(0.0420)	0.3542
1999	0.1330	0.8936	(0.1469)	0.7012	(0.0153)	67.9479	0.1897	(0.1472)	0.4052
2000	0.1061	0.6984	(0.0282)	0.6055	(0.0172)	225.2510	0.1751	(0.1823)	0.4154
2001	0.1027	2.3500	0.5939	0.5984	0.0159	4.4268	0.1716	(0.1446)	0.3772
2002	0.0931	2.2385	0.6072	0.5830	0.0136	4.4195	0.1598	(0.2221)	0.4005
2003	0.0924	(21.2226)	0.4948	0.6281	0.0469	2.0123	0.1471	(0.1458)	0.3112
2004	0.0955	12.5759	0.5098	0.6357	0.0388	2.3651	0.1502	(0.1009)	0.2833
2005	0.0944	9.1863	0.5133	0.6458	0.0371	2.4088	0.1461	(0.0843)	0.2569
2006	0.1100	7.4183	0.5183	0.6249	0.0312	3.2711	0.1760	0.0276	0.2452
2007	0.1175	4.9524	0.5297	0.6252	0.0266	3.9152	0.1879	0.0099	0.2625
2008	0.1062	2.7335	0.5749	0.5926	0.0146	5.3611	0.1792	(0.0179)	0.2619
2009	0.1185	0.1659	0.2966	0.4867	(0.0586)	(4.7920)	0.2434	(0.2463)	0.5033
2010	0.0940	0.4040	0.1763	0.3989	(0.0288)	(15.2685)	0.2357	(0.2197)	0.5246
2011	0.1060	0.7548	0.0141	0.3530	(0.0157)	#####	0.3002	(0.1116)	0.5921
2012	0.1184	0.2235	0.1625	0.2799	(0.0379)	(16.0991)	0.4228	(0.1244)	0.9641
Neutral tests	m_K=M/K	m=M/Y	m_{PI}=M/PI	r_(DEBT)-r*	r_(DEBT)/r*	(e_(US))/g_Y**	r*-r*(US)	e*(US)	e*(US)/e*(US)
13. Philippines						g_Y**=g_Y*/g_Y*(US)	e*(US)=e*(US)+(r*-r*(US))		
1990	0.5577	0.3805	4.041	0.103	1.747	2.91	0.0397	28.040	0.9986
1991	0.5603	0.3866	3.628	0.076	1.494	4.72	0.0653	26.715	0.9976
1992	0.5552	0.4038	3.236	0.023	1.135	4.27	0.0750	25.171	0.9970
1993	0.6114	0.4743	3.367	(0.035)	0.809	7.28	0.0948	27.794	0.9966
1994	0.6790	0.5236	4.156	(0.013)	0.922	10.37	0.0797	24.498	0.9967
1995	0.7278	0.5761	4.433	(0.022)	0.868	8.14	0.0808	26.295	0.9969
1996	0.7842	0.6255	4.844	(0.022)	0.864	11.16	0.0830	26.371	0.9969
1997	0.8314	0.6892	5.126	(0.032)	0.802	18.34	0.0901	40.065	0.9978
1998	0.8537	0.6813	4.199	(0.023)	0.885	136.61	0.1350	39.194	0.9966
1999	1.0168	0.7129	5.360	(0.066)	0.650	(90.14)	0.1237	40.437	0.9969
2000	1.1296	0.6840	6.450	(0.057)	0.672	(111.25)	0.1096	50.108	0.9978
2001	1.0794	0.6459	6.290	(0.038)	0.781	85.82	0.0958	51.500	0.9981
2002	1.1050	0.6442	6.916	(0.073)	0.544	74.39	0.0648	53.161	0.9988
2003	0.9841	0.6182	6.691	(0.060)	0.593	22.97	0.0442	55.613	0.9992
2004	0.9505	0.6043	6.330	(0.047)	0.684	32.58	0.0465	56.313	0.9992
2005	0.8904	0.5750	6.093	(0.060)	0.593	31.22	0.0339	53.101	0.9994
2006	0.9438	0.5898	5.363	(0.102)	0.420	44.03	0.0780	49.210	0.9984
2007	0.8931	0.5583	4.753	(0.135)	0.284	34.67	0.0871	41.488	0.9979
2008	0.8279	0.4906	4.620	(0.092)	0.488	48.21	0.0644	47.549	0.9986
2009	0.9973	0.4854	4.097	(0.158)	0.352	0.01	0.1145	46.470	0.9975
2010	1.1147	0.4447	4.729	(0.159)	0.325	(3.79)	0.1054	43.990	0.9976
2011	1.2024	0.4245	4.005	(0.234)	0.222	6.96	0.1699	44.098	0.9961
2012	1.4129	0.3955	3.342	(0.366)	0.134	(1.61)	0.2925	41.484	0.9929

Data source: KEWT 8.14-1 for 17 Europe Area by sector, 1990-2012, whose original data are from *International Financial Statistics Yearbook*, IMF.

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

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

Cost of capit:	$HA_{r^*(i)}$	$r^* - HA_{r^*(i)}$	$v^* = r^*/(r^* - gY^*)$	CC^*_{REAL}	$CC^*_{REAL(G)}$	$CC^*_{REAL(PRI)}$	$CC^*_{NOMINAL}$	$CC^*_{NOMI(G)}$	$CC^*_{NOMI(P)}$
15. Sri Lat	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990	0.0635	0.0106	(16.12)	(0.0007)	(0.0228)	0.0173	(0.0046)	(0.2839)	0.0426
1991	0.0781	0.0175	6.20	0.0028	(0.0276)	0.0433	0.0154	(0.3108)	0.0796
1992	0.0678	0.0085	(11.32)	(0.0008)	(0.0160)	0.0080	(0.0067)	(0.1737)	0.0243
1993	0.0612	0.0102	(4.29)	(0.0024)	(0.0195)	0.0068	(0.0166)	(0.2009)	0.0211
1994	0.0371	0.0384	(1.99)	(0.0193)	(0.0850)	0.0105	(0.0380)	(0.2564)	0.0308
1995	0.0658	0.0092	(6.25)	(0.0015)	(0.0256)	0.0064	(0.0120)	(0.2458)	0.0532
1996	0.0656	0.0097	(10.65)	(0.0009)	(0.0116)	0.0076	(0.0071)	(0.1870)	0.0456
1997	0.0558	0.0050	(0.99)	(0.0050)	(0.0103)	(0.0031)	(0.0613)	(0.1446)	(0.0359)
1998	0.0569	0.0038	(3.53)	(0.0011)	(0.0098)	0.0039	(0.0172)	(0.1725)	0.0302
1999	0.0525	0.0036	(1.99)	(0.0018)	(0.0039)	(0.0048)	(0.0281)	(0.1146)	(0.0131)
2000	0.0561	0.0040	(2.14)	(0.0019)	(0.0065)	0.0035	(0.0280)	(0.1635)	0.0096
2001	0.0545	0.0154	15.48	0.0010	(0.0151)	0.0451	0.0045	(0.1684)	0.0676
2002	0.0594	0.0122	17.79	0.0007	(0.0139)	0.0256	0.0040	(0.1318)	0.0597
2003	0.0583	0.0142	8.10	0.0018	(0.0136)	0.0320	0.0090	(0.1184)	0.0631
2004	0.0597	0.0110	(8.25)	(0.0013)	(0.0145)	0.0172	(0.0086)	(0.1270)	0.0428
2005	0.0568	0.0079	(2.84)	(0.0028)	(0.0139)	0.0067	(0.0228)	(0.1254)	0.0224
2006	0.0633	0.0071	(2.91)	(0.0024)	(0.0236)	0.0062	(0.0242)	(0.1451)	0.0290
2007	0.0641	0.0059	(2.87)	(0.0021)	(0.0209)	0.0054	(0.0244)	(0.1529)	0.0238
2008	0.0939	0.0073	(116.31)	(0.0001)	(0.0298)	0.0116	(0.0009)	(0.1825)	0.0584
2009	0.0617	0.0065	(7.44)	(0.0009)	(0.0219)	0.0080	(0.0092)	(0.2600)	0.0813
2010	0.0590	0.0054	(2.32)	(0.0023)	(0.0162)	0.0035	(0.0278)	(0.2156)	0.0398
2011	0.0747	0.0065	(3.73)	(0.0017)	(0.0147)	0.0034	(0.0218)	(0.1994)	0.0418
2012	0.0633	0.0052	(1.76)	(0.0029)	(0.0113)	0.0007	(0.0389)	(0.1746)	0.0091
Speed years	$1/\lambda^*$	$1/\lambda_G^*$	$1/\lambda_{PRI}^*$	actual	endoge. endogenous	difference	Δd	SPRI-IPRI	bop
15. Sri Lat	in equilibrium	G	PRI	actual	endogenous	difference	G	PRI	TOTAL
1990	22.31	3.63	27.50	0.1665	0.1770	(0.0105)	(0.0850)	(0.0233)	(0.1083)
1991	24.30	2.89	27.08	0.1739	0.1742	(0.0002)	(0.1039)	(0.0290)	(0.1329)
1992	20.81	7.35	25.05	0.1809	0.1881	(0.0071)	(0.0592)	(0.0628)	(0.1220)
1993	20.10	5.67	25.97	0.1939	0.1951	(0.0012)	(0.0706)	(0.0475)	(0.1180)
1994	15.25	4.83	25.89	0.2049	0.2139	(0.0090)	(0.0939)	(0.0516)	(0.1455)
1995	20.10	4.85	30.61	0.1969	0.1953	0.0016	(0.0908)	(0.0353)	(0.1262)
1996	21.42	5.72	39.30	0.1838	0.1837	0.0001	(0.0857)	(0.0285)	(0.1142)
1997	12.80	7.46	16.33	0.1834	0.2865	(0.1031)	(0.0681)	(0.1074)	(0.1755)
1998	19.37	7.91	27.83	0.1947	0.1844	0.0102	(0.0761)	(0.0004)	(0.0765)
1999	17.21	8.75	25.31	0.2122	0.2100	0.0021	(0.0653)	(0.0392)	(0.1044)
2000	16.76	6.30	25.19	0.2181	0.2208	(0.0028)	(0.0933)	(0.0449)	(0.1382)
2001	26.42	6.34	42.26	0.1711	0.1522	0.0189	(0.1038)	0.0157	(0.0881)
2002	25.57	8.67	37.12	0.1561	0.1554	0.0007	(0.0819)	(0.0068)	(0.0886)
2003	27.75	9.46	38.01	0.1559	0.1436	0.0122	(0.0762)	(0.0008)	(0.0771)
2004	21.82	9.00	30.53	0.1761	0.1805	(0.0044)	(0.0815)	(0.0275)	(0.1090)
2005	18.97	9.52	28.86	0.1818	0.2006	(0.0188)	(0.0775)	(0.0353)	(0.1128)
2006	17.75	12.39	26.07	0.1934	0.2151	(0.0216)	(0.0765)	(0.0611)	(0.1376)
2007	17.74	12.18	25.48	0.1923	0.2115	(0.0192)	(0.0725)	(0.0550)	(0.1274)
2008	18.80	14.23	26.01	0.1967	0.2215	(0.0248)	(0.0730)	(0.1055)	(0.1785)
2009	21.67	5.57	38.66	0.1904	0.1732	0.0172	(0.1142)	0.0292	(0.0850)
2010	17.63	6.05	28.57	0.0000	0.2087	(0.2087)	(0.0991)	(0.0066)	(0.1058)
2011	16.66	6.26	25.60	0.0000	0.2339	(0.2339)	(0.0942)	(0.0797)	(0.1739)
2012	14.88	6.57	21.24	0.0000	0.2510	(0.2510)	(0.0879)	(0.0857)	(0.1736)
Employment	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 Lat	under attaining equilibrium			under the same wage rate by sector			actual; to population		
1990	0.0113	0.0000	0.0194	0.0000	0.0000	0.0000	(0.0648)	0.1352	0.1194
1991	0.0147	0.0000	0.0250	0.0000	(0.0565)	0.0327	(0.0635)	0.1223	0.1764
1992	0.0093	0.0000	0.0194	0.0000	0.0525	0.0118	(0.0635)	0.1134	0.1883
1993	0.0126	0.0000	0.0152	0.0000	0.0590	0.0072	(0.0662)	0.1175	0.1918
1994	0.0578	0.0000	(0.0277)	0.0000	(0.0670)	(0.0192)	(0.0590)	0.0853	0.1429
1995	0.0107	0.0000	(0.0007)	0.0000	(0.1873)	0.0247	(0.0554)	0.0764	0.1712
1996	0.0106	0.0000	(0.0006)	0.0000	0.0817	(0.0141)	(0.0509)	0.1590	0.1729
1997	0.0100	0.0000	0.0000	0.0415	0.0977	0.0330	(0.0473)	0.0958	0.1419
1998	0.0049	0.0000	0.0051	0.0000	(0.3691)	0.0568	(0.0414)	0.0937	0.1465
1999	0.0054	0.0000	0.0214	0.0000	0.3429	(0.0477)	(0.0401)	0.0468	0.1436
2000	0.0059	0.0000	0.0228	0.0000	(0.1755)	0.0446	(0.0342)	0.0619	0.1576
2001	0.0144	0.0000	0.0110	0.0000	0.0075	0.0099	(0.0356)	0.1422	0.1785
2002	0.0116	0.0000	0.0132	0.0000	(0.2385)	0.0485	(0.0396)	0.0951	0.1195
2003	0.0125	0.0000	0.0141	0.0000	0.0442	0.0057	(0.0374)	0.0639	0.0892
2004	0.0123	0.0000	0.0183	0.0000	(0.0340)	0.0244	(0.0383)	0.0756	0.0837
2005	0.0106	0.0000	0.0168	0.0000	(0.0242)	0.0213	(0.0347)	0.0905	0.0997
2006	0.0095	0.0000	0.0149	0.0000	(0.1835)	0.0502	(0.0293)	0.1000	0.1214
2007	0.0079	0.0000	0.0181	0.0000	0.0105	0.0156	(0.0270)	0.1582	0.1649
2008	0.0074	0.0000	0.0180	0.0000	(0.1093)	0.0434	(0.0234)	0.2261	0.1816
2009	0.0073	0.0000	0.0000	0.0000	(0.0379)	0.0100	(0.0257)	0.0339	0.1502
2010	0.0078	0.0000	0.0000	0.0000	0.1212	(0.0336)	0.0000	0.0594	0.0968
2011	0.0082	0.0000	0.0000	0.0000	0.0220	(0.0052)	0.0000	0.0707	0.0876
2012	0.0081	0.0000	0.0000	0.0000	0.1055	(0.0242)	0.0000	0.0682	0.1276

Data source: KEWT 8.14-1 for 17 Europe Area by sector, 1990-2012, 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 _B * ⁽ⁱ⁾	HA _B * ^{(i)G}	HA _B * ^{(i)PRI}	HA _Ω * ⁽ⁱ⁾	HA _Ω G* ^{(i)G}	HA _Ω PRI* ^{(i)PRI}	Width _Ω ⁽ⁱ⁾	Width _Ω G ^{(i)G}	Width _Ω PRI ^{(i)PRI}
15. Sri Lanka		G	PRI		G	PRI		G	PRI
1990	0.6296	0.7057	0.6206	1.7445	3.9077	2.2504	0.2273	0.4884	0.4605
1991	0.6362	0.7262	0.6239	1.8115	4.6283	2.8162	0.2659	0.6502	0.6338
1992	0.6281	0.7315	0.6121	1.6699	3.7022	1.9457	0.1986	0.4115	0.3934
1993	0.6224	0.7466	0.6010	1.7022	4.0568	1.8729	0.2358	0.5210	0.3763
1994	0.6366	0.7613	0.6025	2.9985	5.9902	1.8971	0.8156	1.5838	0.3944
1995	0.6258	0.7212	0.6032	1.6781	4.5011	1.4200	0.2145	0.5406	0.1784
1996	0.6243	0.7585	0.5900	1.6791	3.4925	1.4884	0.2134	0.4097	0.1870
1997	0.6287	0.7709	0.5935	1.6574	3.6294	1.4134	0.2058	0.4100	0.1803
1998	0.6277	0.7095	0.6066	1.6249	3.2710	1.5032	0.1415	0.2688	0.1881
1999	0.6464	0.8134	0.6072	1.7630	3.7503	2.1819	0.1591	0.3043	0.4241
2000	0.6515	0.8016	0.6126	1.7918	4.4387	2.1160	0.1684	0.3792	0.4249
2001	0.6536	0.8219	0.5999	2.1103	5.1804	3.8034	0.3009	0.6799	0.6698
2002	0.6418	0.7872	0.5916	1.8956	4.4428	2.1225	0.2464	0.5322	0.3934
2003	0.6395	0.8004	0.5818	1.9333	4.6481	2.3723	0.2602	0.5733	0.4501
2004	0.6355	0.7950	0.5779	1.8180	4.6684	1.9155	0.2457	0.5740	0.4017
2005	0.6283	0.7834	0.5731	1.7185	4.5026	1.6195	0.2185	0.5184	0.3308
2006	0.6243	0.7355	0.5866	1.6400	4.3190	1.4676	0.1987	0.4808	0.2861
2007	0.6143	0.7133	0.5850	1.5535	3.7322	1.4917	0.1738	0.3861	0.2995
2008	0.6169	0.6703	0.6040	1.4831	3.3370	1.4511	0.1600	0.3408	0.2855
2009	0.6145	0.6615	0.5991	1.5778	3.1887	1.3375	0.1692	0.3309	0.1450
2010	0.6155	0.6909	0.5920	1.5736	3.1907	1.3321	0.1739	0.3344	0.1498
2011	0.6269	0.7045	0.6030	1.5948	3.2261	1.3509	0.1795	0.3440	0.1549
2012	0.6307	0.7310	0.6008	1.6423	3.3182	1.3920	0.1837	0.3467	0.1593
Key ratios	α	δ₀	β*	Ω	g_λ*=(1-β*)	x=r*/gy*	r*=α/Ω	r_G*=αG/ΩG	r_{PRI}*=αP/ΩP
15. Sri Lanka						x=a/(i·b*)	G	PRI	
1990	0.1108	0.4137	0.6649	1.4944	0.0593	0.9416	0.0741	(0.1434)	0.1182
1991	0.1415	0.4852	0.6816	1.4798	0.0554	1.1923	0.0956	(0.1455)	0.1526
1992	0.1132	0.3857	0.6552	1.4837	0.0648	0.9188	0.0763	(0.0730)	0.1119
1993	0.1041	0.4236	0.6580	1.4582	0.0667	0.8111	0.0714	(0.0707)	0.1072
1994	0.1111	0.6962	0.7811	1.4718	0.0468	0.6652	0.0755	(0.0820)	0.1193
1995	0.1105	0.4013	0.6560	1.4716	0.0672	0.8621	0.0751	(0.1428)	0.1362
1996	0.1102	0.4105	0.6560	1.4630	0.0632	0.9142	0.0753	(0.0164)	0.1053
1997	0.0924	0.3143	0.6484	1.5217	0.1007	0.4976	0.0607	(0.0037)	0.0815
1998	0.0924	0.2835	0.6427	1.5231	0.0659	0.7794	0.0607	(0.0872)	0.1081
1999	0.0925	0.2518	0.6614	1.6501	0.0711	0.6658	0.0561	0.0453	0.0599
2000	0.1005	0.2604	0.6671	1.6719	0.0735	0.6819	0.0601	(0.0145)	0.0891
2001	0.1151	0.4357	0.7075	1.6462	0.0445	1.0690	0.0699	(0.0078)	0.1057
2002	0.1126	0.4132	0.6836	1.5716	0.0492	1.0595	0.0716	(0.0219)	0.1175
2003	0.1128	0.4425	0.6881	1.5545	0.0448	1.1409	0.0725	(0.0096)	0.1156
2004	0.1085	0.4083	0.6737	1.5354	0.0589	0.8919	0.0706	(0.0192)	0.1190
2005	0.0976	0.3712	0.6581	1.5094	0.0686	0.7396	0.0647	(0.0297)	0.1143
2006	0.1038	0.3669	0.6488	1.4749	0.0755	0.7440	0.0704	(0.0866)	0.1438
2007	0.0996	0.3627	0.6349	1.4228	0.0772	0.7414	0.0700	(0.0948)	0.1387
2008	0.1393	0.4216	0.6345	1.3758	0.0810	0.9915	0.1013	(0.1372)	0.1867
2009	0.0974	0.3701	0.6378	1.4282	0.0627	0.8815	0.0682	(0.1730)	0.1555
2010	0.0928	0.3459	0.6361	1.4410	0.0760	0.6987	0.0644	(0.1121)	0.1284
2011	0.1192	0.3622	0.6461	1.4680	0.0828	0.7887	0.0812	(0.0883)	0.1422
2012	0.1039	0.3201	0.6488	1.5179	0.0882	0.6378	0.0684	(0.0488)	0.1109
Neutral tests	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)
15. Sri Lanka						gy**=gy*/gy*(US)		e*(US)=e(US)+(r*-r*(US))	
1990	0.2055	0.3072	2.772	0.056	1.753	8.97	(0.0242)	61.261	1.0004
1991	0.2210	0.3271	2.311	0.098	2.027	8.89	0.0065	68.303	0.9999
1992	0.2254	0.3345	2.954	0.120	2.579	7.38	(0.0203)	72.150	1.0003
1993	0.2408	0.3511	3.372	0.131	2.829	16.47	(0.0154)	82.565	1.0002
1994	0.2463	0.3625	3.262	0.106	2.401	35.57	(0.0082)	93.151	1.0001
1995	0.2901	0.4269	3.865	0.105	2.404	23.08	(0.0083)	96.717	1.0001
1996	0.2823	0.4130	3.749	0.107	2.425	28.84	(0.0037)	96.734	1.0000
1997	0.2648	0.4030	4.360	0.086	2.418	24.75	(0.0113)	104.59	1.0001
1998	0.2635	0.4014	4.345	0.090	2.478	44.28	(0.0076)	102.11	1.0001
1999	0.1947	0.3213	3.474	0.091	2.626	54.15	(0.0099)	107.70	1.0001
2000	0.1928	0.3224	3.209	0.102	2.690	56.80	(0.0055)	108.71	1.0001
2001	0.2047	0.3370	2.928	0.124	2.773	66.36	(0.0058)	113.13	1.0001
2002	0.2088	0.3281	2.914	0.060	1.839	36.76	(0.0233)	96.702	1.0002
2003	0.2181	0.3391	3.007	0.031	1.425	40.91	(0.0303)	96.708	1.0003
2004	0.2320	0.3562	3.284	0.024	1.341	39.34	(0.0330)	104.57	1.0003
2005	0.2376	0.3586	3.673	0.043	1.664	32.42	(0.0475)	102.07	1.0005
2006	0.2422	0.3573	3.442	0.058	1.826	40.21	(0.0276)	107.68	1.0003
2007	0.2482	0.3532	3.547	0.101	2.441	32.05	(0.0309)	108.69	1.0003
2008	0.2281	0.3138	2.252	0.088	1.865	20.01	(0.0135)	113.13	1.0001
2009	0.2364	0.3377	3.468	0.089	2.298	(0.01)	(0.0608)	114.32	1.0005
2010	0.2317	0.3339	3.599	0.038	1.587	3.64	(0.0660)	110.89	1.0006
2011	0.2375	0.3486	2.924	0.013	1.159	(3.37)	(0.0491)	113.85	1.0004
2012	0.2393	0.3633	3.497	0.064	1.941	2.17	(0.0619)	127.10	1.0005

Data source: KEWT 8.14-1 for 17 Europe Area by sector, 1990-2012, whose original data are from *International Financial Statistics Yearbook*, IMF.

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

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

Cost of capit:	$\text{HA}_{r^*}(t)$	$r^* - \text{HA}_{r^*}(t)$	$v^* = r^*/(r^* - g_{v^*})$	$\text{CC}^*_{\text{REAL}}$	$\text{CC}^*_{\text{REAL}(G)}$	$\text{CC}^*_{\text{REAL}(\text{PRI})}$	$\text{CC}^*_{\text{NOMINAL}}$	$\text{CC}^*_{\text{NOMI}(G)}$	$\text{CC}^*_{\text{NOMI}(P)}$
17. Vietnam	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990	0.0500	0.0907	1.33	0.0682	(0.0113)	0.1691	0.1058	(0.0448)	0.1505
1991	0.0849	0.0535	1.77	0.0303	(0.0096)	0.0605	0.0783	(0.0507)	0.1164
1992	0.0822	0.0405	2.48	0.0163	(0.0045)	0.0325	0.0494	(0.0303)	0.0680
1993	0.0756	0.0186	(3.92)	(0.0047)	(0.0099)	(0.0028)	(0.0240)	(0.0932)	(0.0108)
1994	0.0776	0.0168	(4.21)	(0.0040)	(0.0015)	(0.0066)	(0.0224)	(0.0110)	(0.0339)
1995	0.0817	0.0094	(4.81)	(0.0019)	0.0018	(0.0089)	(0.0190)	0.0329	(0.0648)
1996	0.0789	0.0132	(3.60)	(0.0037)	0.0032	(0.0122)	(0.0256)	0.0342	(0.0706)
1997	0.0674	0.0107	(2.17)	(0.0049)	(0.0008)	(0.0116)	(0.0360)	(0.0094)	(0.0672)
1998	0.0679	0.0101	(2.16)	(0.0047)	0.0022	(0.0115)	(0.0361)	0.0230	(0.0783)
1999	0.1086	0.0178	5.12	0.0035	0.0016	0.0029	0.0247	0.0176	0.0171
2000	0.1098	0.0169	7.02	0.0024	(0.0025)	0.0058	0.0181	(0.0333)	0.0309
2001	0.1066	0.0166	9.24	0.0018	0.0043	(0.0008)	0.0133	0.0369	(0.0053)
2002	0.0996	0.0142	(29.84)	(0.0005)	(0.0008)	(0.0018)	(0.0038)	(0.0093)	(0.0117)
2003	0.0912	0.0125	(5.74)	(0.0022)	(0.0030)	(0.0030)	(0.0181)	(0.0377)	(0.0191)
2004	0.0920	0.0124	(6.00)	(0.0021)	(0.0032)	(0.0023)	(0.0174)	(0.0377)	(0.0157)
2005	0.1073	0.0027	(78.20)	(0.0000)	(0.0004)	0.0001	(0.0014)	(0.0232)	0.0025
2006	0.0972	0.0115	(14.38)	(0.0008)	(0.0012)	(0.0013)	(0.0076)	(0.0150)	(0.0103)
2007	0.0887	0.0075	(1.73)	(0.0043)	(0.0009)	(0.0063)	(0.0556)	(0.0111)	(0.0831)
2008	0.0842	0.0074	(1.77)	(0.0041)	(0.0008)	(0.0065)	(0.0516)	(0.0110)	(0.0787)
2009	0.0796	0.0082	(2.73)	(0.0030)	(0.0005)	(0.0051)	(0.0321)	(0.0057)	(0.0514)
2010	0.0989	0.0081	(2.91)	(0.0028)	(0.0007)	(0.0041)	(0.0368)	(0.0101)	(0.0531)
2011	0.0899	0.0000	(2.69)	0.0000	0.0000	0.0000	(0.0334)	(0.0092)	(0.0475)
2012	0.0775	0.0000	(2.40)	0.0000	0.0000	0.0000	(0.0322)	(0.0090)	(0.0452)
Speed years	$1/\lambda^*$	$1/\lambda_G^*$	$1/\lambda_{\text{PRI}}^*$	actual	endogene. endogenous	difference	Δd	$\text{SPRI} - \text{IPRI}$	bop
17. Vietnam	in equilibrium	G	PRI	actual	endogenous	difference	G	PRI	TOTAL
1990	56.56	18.50	#NUM!	0.1091	0.0946	0.0146	(0.0318)	(0.1416)	(0.1734)
1991	35.26	14.89	46.43	0.1141	0.1172	(0.0031)	(0.0261)	(0.0900)	(0.1161)
1992	34.83	14.51	51.44	0.1430	0.1252	0.0178	(0.0203)	(0.0631)	(0.0833)
1993	24.48	10.48	(156.56)	0.1820	0.2151	(0.0331)	(0.0478)	(0.0919)	(0.1398)
1994	27.42	15.37	(25.66)	0.2018	0.2118	(0.0100)	(0.0157)	(0.1173)	(0.1331)
1995	36.36	18.16	(1.39)	0.2062	0.2043	0.0019	(0.0059)	(0.1073)	(0.1132)
1996	25.64	18.95	(12.91)	0.2069	0.2195	(0.0126)	(0.0021)	(0.1374)	(0.1394)
1997	20.50	16.40	(27.88)	0.2152	0.2230	(0.0078)	(0.0191)	(0.0917)	(0.1108)
1998	18.14	21.01	(2810.61)	0.2252	0.2320	(0.0069)	(0.0014)	(0.1002)	(0.1016)
1999	22.43	22.98	63.09	0.2142	0.2084	0.0058	(0.0018)	(0.0448)	(0.0465)
2000	19.87	19.43	49.44	0.2304	0.2336	(0.0032)	(0.0312)	(0.0121)	(0.0433)
2001	18.74	31.54	24.61	0.2429	0.2493	(0.0064)	0.0144	(0.0547)	(0.0402)
2002	16.54	25.27	22.29	0.2595	0.2823	(0.0228)	(0.0167)	(0.0581)	(0.0748)
2003	15.21	22.42	21.23	0.2780	0.3041	(0.0262)	(0.0389)	(0.0717)	(0.1106)
2004	15.20	22.86	20.62	0.2771	0.3106	(0.0335)	(0.0400)	(0.0647)	(0.1047)
2005	15.84	26.23	20.07	0.2739	0.2944	(0.0205)	(0.0289)	(0.0398)	(0.0687)
2006	16.07	28.43	19.75	0.2779	0.3038	(0.0259)	(0.0211)	(0.0536)	(0.0747)
2007	11.51	29.22	10.58	0.3189	0.4227	(0.1038)	(0.0178)	(0.1917)	(0.2095)
2008	11.93	27.52	11.43	0.2884	0.3885	(0.1001)	(0.0178)	(0.1877)	(0.2055)
2009	14.12	28.89	13.98	0.2877	0.3400	(0.0523)	(0.0133)	(0.1352)	(0.1485)
2010	12.88	29.84	12.01	0.0000	0.4139	(0.4139)	(0.0168)	(0.1346)	(0.1514)
2011	13.51	33.52	11.94	0.0000	0.4139	(0.4139)	(0.0168)	(0.1346)	(0.1514)
2012	14.74	36.83	12.93	0.0000	0.4139	(0.4139)	(0.0168)	(0.1346)	(0.1514)
Employment	n	$n_{\text{EQU}(G)-n}$	$n_{\text{EQU}(\text{PRI})-n}$	$n_{\text{EQU}-n}$	$n_{\text{EQU}(G)-n_G}$	$n_{\text{EQU}(\text{PRI})-n_P}$	Unem. rate(act)	$\% \text{CPI}(\text{actual})$	Infla. rate
17. Vietnam	under attaining equilibrium			under the same wage rate by sector			actual;	to population	
1990	0.0225	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.3593
1991	0.0233	0.0000	0.0000	0.0000	0.2919	(0.0431)	0.0000	0.0000	0.3465
1992	0.0242	0.0000	0.0000	0.0000	0.0271	(0.0027)	0.0000	0.0000	0.3095
1993	0.0233	0.0000	0.0000	0.0000	(0.0170)	0.0017	0.0000	0.0000	0.2814
1994	0.0208	0.0000	0.0000	0.0000	(0.1260)	0.0126	0.0000	0.0000	0.2332
1995	0.0113	0.0000	0.0000	0.0000	0.0159	(0.0018)	0.0000	0.0705	0.2106
1996	0.0169	0.0000	0.0000	0.0000	(0.0274)	0.0031	0.0000	0.0575	0.1878
1997	0.0157	0.0000	0.0000	0.0000	0.0373	(0.0043)	0.0000	0.0317	0.1335
1998	0.0148	0.0000	0.0000	0.0000	0.0572	(0.0063)	0.0000	0.0724	0.1339
1999	0.0143	0.0000	0.0000	0.0000	0.0335	(0.0035)	0.0000	0.0409	0.1092
2000	0.0145	0.0000	0.0000	0.0000	0.0384	(0.0038)	0.0000	(0.0167)	0.0886
2001	0.0148	0.0000	0.0000	0.0000	0.0005	(0.0001)	0.0000	(0.0040)	0.0776
2002	0.0147	0.0000	0.0000	0.0000	0.0168	(0.0016)	0.0000	0.0382	0.0764
2003	0.0147	0.0000	0.0000	0.0000	(0.0041)	0.0004	0.0000	0.0309	0.0823
2004	0.0145	0.0000	0.0000	0.0000	(0.0204)	0.0019	0.0000	0.0788	0.0848
2005	0.0027	0.0000	0.0000	0.0000	0.0217	(0.0021)	0.0000	0.0826	0.1076
2006	0.0123	0.0000	0.0000	0.0000	0.0179	(0.0017)	0.0000	0.0740	0.1003
2007	0.0119	0.0000	0.0000	0.0000	0.0089	(0.0008)	0.0000	0.0829	0.1043
2008	0.0115	0.0000	0.0000	0.0000	0.0104	(0.0010)	0.0000	0.2313	0.1504
2009	0.0111	0.0000	0.0000	0.0000	(0.0358)	0.0032	0.0000	0.0698	0.0925
2010	0.0109	0.0000	0.0000	0.0000	0.0215	(0.0020)	0.0000	0.0894	0.1233
2011	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1314
2012	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1314

Data source: KEWT 8.14-1 for 17 Europe Area by sector, 1990-2012, 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

Robustnes	HA _B [*] (i)	HA _B [*] (i)G	HA _B [*] (i)PRI	HA _Ω [*] (i)	HA _{ΩG} [*] (i)G	HA _{ΩPRI} [*] (i)G/PRI	Widt _Ω (i)	Width _{ΩG} (i)	Width _{ΩP} (i)
17. Vietnam	G	G	PRI	G	G	PRI	G	G	PRI
1990	0.7955	0.8776	0.7731	6.9741	7.1446	(17.2607)	1.0938	1.1272	2.5442
1991	0.6543	0.8395	0.6085	2.4018	4.6215	2.5407	0.4214	0.7573	0.4433
1992	0.5776	0.8114	0.5190	1.7129	3.1596	1.7947	0.3252	0.5380	0.3401
1993	0.5614	0.8130	0.4931	1.3946	3.0979	1.1895	0.2718	0.5196	0.2413
1994	0.5539	0.7889	0.4891	1.3278	2.7719	1.0920	0.2471	0.4440	0.2138
1995	0.5414	0.7964	0.4667	1.1762	2.1277	0.9891	0.1659	0.2521	0.1482
1996	0.5564	0.8065	0.4787	1.2930	2.3960	1.0654	0.2181	0.3438	0.1910
1997	0.5698	0.8265	0.4857	1.3722	2.8047	1.1005	0.2209	0.3836	0.1888
1998	0.5865	0.8435	0.5017	1.4479	3.0121	1.1383	0.2237	0.3959	0.1881
1999	0.6219	0.8688	0.5343	1.5664	3.3917	1.2278	0.2312	0.4327	0.1927
2000	0.6436	0.8895	0.5471	1.6760	3.8277	1.3015	0.2455	0.4866	0.2026
2001	0.6660	0.8971	0.5745	1.8282	4.0194	1.3762	0.2663	0.5131	0.2140
2002	0.6820	0.9070	0.5884	1.9467	4.1660	1.4841	0.2801	0.5282	0.2271
2003	0.6907	0.9128	0.5928	2.0385	4.5057	1.5306	0.2921	0.5704	0.2336
2004	0.6990	0.9162	0.5986	2.0972	4.7739	1.5393	0.2968	0.5989	0.2325
2005	0.7023	0.9203	0.5989	1.9162	4.5822	1.3519	0.1193	0.2500	0.0909
2006	0.7098	0.9243	0.6069	2.1392	5.0312	1.5261	0.2767	0.5774	0.2116
2007	0.7213	0.9245	0.6304	2.2270	5.0691	1.6261	0.2825	0.5726	0.2200
2008	0.7085	0.9179	0.6211	2.1416	4.6420	1.6098	0.2696	0.5179	0.2156
2009	0.7229	0.9195	0.6404	2.3190	4.9168	1.7662	0.2841	0.5394	0.2287
2010	0.7413	0.9252	0.6659	2.3533	4.8662	1.8194	0.2825	0.5267	0.2298
2011	0.7714	0.9343	0.7041	2.5888	5.2401	2.0264	0.0000	0.0000	0.0000
2012	0.7965	0.9418	0.7359	3.0027	5.9677	2.3737	0.0000	0.0000	0.0000
Key ratios	α	δ ₀	β [*]	Ω	g _A [*] =i(1-β [*])	x=i [*] /g _Y [*]	r [*] =α/Ω	r _G [*] =α _G /Ω _G	r _{PRI} [*] =α _{PRI} /Ω _{PRI}
17. Vietnam						x=a/(i·b [*])	G	G	PRI
1990	0.3487	0.6208	0.9163	2.4781	0.0079	4.0247	0.1407	0.0446	0.1706
1991	0.2038	0.6566	0.7553	1.4726	0.0287	2.3027	0.1384	0.0715	0.1612
1992	0.1408	0.8077	0.6712	1.1471	0.0412	1.6748	0.1227	0.1333	0.1186
1993	0.1054	0.7590	0.6147	1.1191	0.0829	0.7969	0.0942	0.1259	0.0799
1994	0.1030	0.7891	0.6018	1.0910	0.0843	0.8081	0.0944	0.1438	0.0724
1995	0.0961	0.8041	0.5682	1.0553	0.0882	0.8277	0.0911	0.2388	0.0172
1996	0.1021	0.7325	0.5942	1.1074	0.0891	0.7824	0.0922	0.2161	0.0273
1997	0.0925	0.6072	0.6057	1.1836	0.0879	0.6850	0.0782	0.1762	0.0235
1998	0.0983	0.5262	0.6197	1.2602	0.0882	0.6834	0.0780	0.1785	0.0222
1999	0.1701	0.5425	0.6569	1.3460	0.0715	1.2425	0.1264	0.1719	0.1001
2000	0.1841	0.4917	0.6757	1.4524	0.0757	1.1662	0.1267	0.1568	0.1076
2001	0.1949	0.4505	0.6974	1.5820	0.0754	1.1213	0.1232	0.1649	0.0974
2002	0.1940	0.4057	0.7102	1.7035	0.0818	0.9676	0.1139	0.1589	0.0850
2003	0.1859	0.3745	0.7176	1.7919	0.0859	0.8517	0.1037	0.1446	0.0760
2004	0.1930	0.3669	0.7250	1.8473	0.0854	0.8571	0.1045	0.1358	0.0823
2005	0.2057	0.2920	0.7075	1.8690	0.0861	0.9874	0.1100	0.1353	0.0916
2006	0.2080	0.3547	0.7322	1.9137	0.0814	0.9350	0.1087	0.1337	0.0904
2007	0.1975	0.3034	0.7374	2.0529	0.1110	0.6337	0.0962	0.1324	0.0725
2008	0.1802	0.3025	0.7255	1.9696	0.1067	0.6394	0.0915	0.1424	0.0601
2009	0.1847	0.2960	0.7420	2.1036	0.0877	0.7322	0.0878	0.1327	0.0608
2010	0.2328	0.3134	0.7561	2.1750	0.1009	0.7440	0.1070	0.1399	0.0883
2011	0.2328	0.2179	0.7714	2.5888	0.0946	0.7292	0.0899	0.1205	0.0732
2012	0.2328	0.1942	0.7965	3.0027	0.0842	0.7063	0.0775	0.1058	0.0625
Neutral tests	m _K =M/K	m _Y =M/Y	m _Π =M/Π	Γ(DEBT)-Γ [*]	Γ(DEBT)/Γ [*]	(e(US))/g _Y ^{**}	r [*] -r [*] (US)	e [*] (US)	e(US)/e [*] (US)
17. Vietnam						g _Y ^{**} =g _Y [*] /g _Y [*] (US)	e [*] (US)=e(US)/(r [*] -r [*] (US))		
1990	0.0962	0.2384	0.683	0.309	3.198	6528	0.0424	8125	1.0000
1991	0.1574	0.2318	1.137	0.262	2.890	2686	0.0492	11500	1.0000
1992	0.2203	0.2527	1.795	0.227	2.852	1649	0.0261	10565	1.0000
1993	0.1998	0.2236	2.122	0.206	3.186	1738	0.0074	10843	1.0000
1994	0.1997	0.2178	2.115	0.156	2.649	2364	0.0107	11051	1.0000
1995	0.2083	0.2198	2.287	0.129	2.416	2034	0.0077	11015	1.0000
1996	0.2100	0.2325	2.278	0.109	2.181	2379	0.0132	11149	1.0000
1997	0.2119	0.2507	2.710	0.066	1.845	3330	0.0061	12292	1.0000
1998	0.2134	0.2690	2.737	0.066	1.847	4468	0.0097	13890	1.0000
1999	0.3003	0.4041	2.376	0.001	1.005	6416	0.0604	14028	1.0000
2000	0.3412	0.4956	2.693	(0.021)	0.833	6676	0.0612	14514	1.0000
2001	0.3660	0.5791	2.971	(0.029)	0.765	4750	0.0475	15084	1.0000
2002	0.3459	0.5893	3.038	(0.023)	0.796	3196	0.0189	15403	1.0000
2003	0.3821	0.6848	3.684	(0.009)	0.914	3166	0.0008	15646	1.0000
2004	0.4166	0.7696	3.987	(0.007)	0.930	3704	0.0008	15777	1.0000
2005	0.4594	0.8587	4.175	0.000	1.002	3543	(0.0022)	15916	1.0000
2006	0.5012	0.9591	4.612	0.003	1.029	4916	0.0107	16054	1.0000
2007	0.5934	1.2182	6.168	0.016	1.162	2945	(0.0046)	16114	1.0000
2008	0.5750	1.1324	6.284	0.066	1.725	2171	(0.0233)	16977	1.0000
2009	0.6085	1.2801	6.931	0.013	1.147	(1.40)	(0.0411)	17941	1.0000
2010	0.6391	1.3901	5.971	0.024	1.228	395.3	(0.0233)	18932	1.0000
2011	0.5370	1.3901	5.971	0.041	1.461	(427.3)	(0.0404)	18932	1.0000
2012	0.4630	1.3901	5.971	0.054	1.695	289.8	(0.0528)	18932	1.0000

Data source: KEWT 8.14-1 for 17 Europe Area by sector, 1990-2012, whose original data are from *International Financial Statistics Yearbook*, IMF.

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

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

Cost of capit:	$\text{HA}_r^*(i)$	$r^* - \text{HA}_r^*(i)$	$v^* = r^*/(r^* - g_Y^*)$	$\text{CC}^*_{\text{REAL}}$	$\text{CC}^*_{\text{REAL}(G)}$	$\text{CC}^*_{\text{REAL}(PRI)}$	$\text{CC}^*_{\text{NOMINAL}}$	$\text{CC}^*_{\text{NOM}(G)}$	$\text{CC}^*_{\text{NOM}(P)}$
5. Mexico	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990	0.0544	0.0299	3.13	0.0095	(0.0196)	0.0187	0.0269	(0.0789)	0.0487
1991	0.0612	0.0349	2.33	0.0150	0.0411	0.0063	0.0413	0.1543	0.0161
1992	0.0835	0.0526	1.71	0.0307	0.1398	0.0181	0.0795	0.2211	0.0503
1993	0.0589	0.0220	184.49	0.0001	0.0147	(0.0041)	0.0004	0.0668	(0.0142)
1994	0.0621	0.0178	(21.32)	(0.0008)	0.0079	(0.0032)	(0.0037)	0.0413	(0.0138)
1995	0.0728	0.0166	21.05	0.0008	0.0038	(0.0007)	0.0042	0.0300	(0.0032)
1996	0.1105	0.0221	5.87	0.0038	0.0067	0.0027	0.0226	0.0487	0.0154
1997	0.1239	0.0186	6.21	0.0030	0.0008	0.0035	0.0229	0.0071	0.0259
1998	0.0815	0.0151	(8.37)	(0.0018)	(0.0007)	(0.0025)	(0.0115)	(0.0060)	(0.0148)
1999	0.0788	0.0150	(17.79)	(0.0008)	0.0002	(0.0020)	(0.0053)	0.0016	(0.0108)
2000	0.0753	0.0174	(11.23)	(0.0016)	0.0018	(0.0046)	(0.0083)	0.0158	(0.0206)
2001	0.0355	0.0467	(6.53)	(0.0071)	0.0023	(0.0135)	(0.0126)	0.0056	(0.0214)
2002	0.0637	0.0143	11.87	0.0012	(0.0016)	0.0023	0.0066	(0.0152)	0.0098
2003	0.0709	0.0124	(80.21)	(0.0002)	0.0008	(0.0012)	(0.0010)	0.0070	(0.0070)
2004	0.0774	0.0150	5.43	0.0028	0.0012	0.0024	0.0170	0.0132	0.0112
2005	0.0718	0.0118	(22.22)	(0.0005)	0.0017	(0.0034)	(0.0038)	0.0187	(0.0200)
2006	0.0844	0.0127	71.42	0.0002	(0.0007)	0.0001	0.0014	(0.0073)	0.0009
2007	0.0799	0.0124	(71.58)	(0.0002)	(0.0023)	0.0007	(0.0013)	(0.0182)	0.0054
2008	0.0718	0.0118	(12.79)	(0.0009)	(0.0004)	(0.0019)	(0.0065)	(0.0038)	(0.0116)
2009	0.0476	0.0106	(5.42)	(0.0020)	(0.0030)	(0.0017)	(0.0108)	(0.0216)	(0.0082)
2010	0.0485	0.0110	(6.96)	(0.0016)	(0.0042)	(0.0002)	(0.0086)	(0.0306)	(0.0011)
2011	0.0541	0.0113	(9.66)	(0.0012)	(0.0034)	(0.0001)	(0.0068)	(0.0264)	(0.0003)
2012	0.0526	0.0115	(11.18)	(0.0010)	(0.0030)	(0.0001)	(0.0057)	(0.0229)	(0.0004)
Speed years	$1/\lambda^*$	$1/\lambda_G^*$	$1/\lambda_{PRI}^*$	i_{actual}	$i_{\text{endoge.}}$	difference	Δd	$\text{SPRI} - \text{IPRI}$	bop
5. Mexico	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL
1990	31.29	14.98	35.93	0.0000	0.1302	(0.1302)	(0.0299)	(0.0215)	(0.0513)
1991	35.21	39.30	35.17	0.0000	0.1105	(0.1105)	0.0351	(0.1026)	(0.0675)
1992	38.23	62.93	34.09	0.0000	0.1047	(0.1047)	0.0504	(0.1428)	(0.0925)
1993	26.55	25.38	27.15	0.0000	0.1539	(0.1539)	0.0057	(0.0810)	(0.0753)
1994	25.20	23.62	25.84	0.0000	0.1651	(0.1651)	(0.0003)	(0.0862)	(0.0865)
1995	30.24	19.15	36.26	0.0000	0.1600	(0.1600)	(0.0059)	(0.0153)	(0.0213)
1996	44.05	20.57	95.45	0.0000	0.1915	(0.1915)	(0.0024)	(0.0206)	(0.0230)
1997	46.13	16.82	218.96	0.0000	0.2108	(0.2108)	(0.0120)	(0.0238)	(0.0358)
1998	38.18	15.53	98.71	0.0000	0.1940	(0.1940)	(0.0161)	(0.0426)	(0.0587)
1999	38.97	15.32	92.78	0.0000	0.1784	(0.1784)	(0.0172)	(0.0295)	(0.0467)
2000	35.24	15.89	76.09	0.1663	0.1800	(0.0136)	(0.0140)	(0.0350)	(0.0490)
2001	18.85	15.83	19.54	0.1556	0.1441	0.0115	(0.0081)	(0.0403)	(0.0484)
2002	32.03	15.02	54.85	0.1498	0.1381	0.0117	(0.0198)	(0.0207)	(0.0405)
2003	29.65	17.22	65.70	0.1473	0.1618	(0.0145)	(0.0111)	(0.0236)	(0.0348)
2004	33.67	16.63	89.58	0.1535	0.1436	0.0099	(0.0101)	0.0103	0.0001
2005	24.24	17.43	43.06	0.1576	0.1764	(0.0188)	(0.0075)	(0.0280)	(0.0356)
2006	21.72	16.22	35.63	0.1632	0.1982	(0.0350)	(0.0162)	(0.0197)	(0.0359)
2007	20.67	17.62	27.99	0.1648	0.2018	(0.0370)	(0.0175)	(0.0206)	(0.0381)
2008	20.05	17.22	25.20	0.1721	0.2034	(0.0313)	(0.0149)	(0.0275)	(0.0424)
2009	23.34	18.34	28.46	0.1661	0.1686	(0.0025)	(0.0218)	(0.0134)	(0.0352)
2010	23.70	17.47	29.88	0.1613	0.1674	(0.0061)	(0.0270)	(0.0021)	(0.0291)
2011	22.64	17.55	28.15	0.1641	0.1789	(0.0148)	(0.0257)	(0.0023)	(0.0280)
2012	23.23	18.35	28.89	0.1519	0.1757	(0.0238)	(0.0238)	(0.0006)	(0.0243)
Employment	n	$n_{\text{EQU}(G)-n}$	$n_{\text{EQU}(PRI)-n}$	$n_{\text{EQU}-n}$	$n_{\text{EQU}(G)-n_G}$	$n_{\text{EQU}(PRI)-n_P}$	Unem.rate(act)	$\% \text{CPI}(\text{actual})$	Infla. rate
5. Mexico	under attaining equilibrium			under the same wage rate by sector			actual; to population		
1990	0.0203	0.0000	0.0000	0.0000	0.0000	0.0000	(0.0158)	0.2125	0.7701
1991	0.0199	0.0000	0.0000	0.0000	(0.0997)	0.0131	(0.0099)	0.2270	0.6651
1992	0.0219	0.0000	0.0000	0.0000	(0.1603)	0.0234	(0.0135)	0.1557	0.5474
1993	0.0219	0.0000	0.0000	0.0000	0.0737	(0.0127)	(0.0108)	0.0983	0.5280
1994	0.0186	0.0000	0.0000	0.0000	(0.0464)	0.0073	(0.0158)	0.0693	0.5072
1995	0.0158	0.0000	0.0000	0.0000	0.0947	(0.0158)	(0.0212)	0.3495	0.5008
1996	0.0183	0.0000	0.0000	0.0000	0.0415	(0.0062)	(0.0167)	0.3429	0.3060
1997	0.0156	0.0000	0.0000	0.0000	(0.0400)	0.0057	(0.0117)	0.2071	0.1958
1998	0.0170	0.0000	0.0000	0.0000	0.0047	(0.0007)	(0.0104)	0.1583	0.1899
1999	0.0158	0.0000	0.0000	0.0000	(0.0583)	0.0086	(0.0081)	0.1660	0.1861
2000	0.0190	0.0000	0.0000	0.0000	(0.0118)	0.0019	(0.0072)	0.0953	0.1407
2001	0.0538	0.0000	0.0000	0.0000	(0.0523)	0.0083	(0.0081)	0.0640	0.0561
2002	0.0131	0.0000	0.0000	0.0000	(0.0312)	0.0053	(0.0090)	0.0498	0.0870
2003	0.0126	0.0000	0.0000	0.0000	0.0223	(0.0039)	(0.0108)	0.0457	0.0774
2004	0.0122	0.0000	0.0000	0.0000	0.0798	(0.0136)	(0.0122)	0.0471	0.0804
2005	0.0123	0.0000	0.0000	0.0000	0.0067	(0.0010)	(0.0162)	0.0395	0.0824
2006	0.0126	0.0000	0.0000	0.0000	0.0018	(0.0003)	(0.0162)	0.0360	0.0712
2007	0.0126	0.0000	0.0000	0.0000	(0.0068)	0.0010	(0.0167)	0.0396	0.0655
2008	0.0127	0.0000	0.0000	0.0000	(0.0230)	0.0035	(0.0180)	0.0520	0.0713
2009	0.0126	0.0000	0.0000	0.0000	(0.0829)	0.0131	(0.0248)	0.0530	0.0690
2010	0.0126	0.0000	0.0000	0.0000	0.0094	(0.0016)	(0.0243)	0.0411	0.0601
2011	0.0125	0.0000	0.0000	0.0000	(0.0075)	0.0013	(0.0234)	0.0346	0.0552
2012	0.0125	0.0000	0.0000	0.0000	0.0184	(0.0032)	(0.0225)	0.0405	0.0445

Data source: KEWT 8.14-1 for 17 Europe Area by sector, 1990-2012, 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

Robustnes	HA _B [*] (i)	HA _B [*] (i)G	HA _B [*] (i)PRI	HA _Ω [*] (i)	HA _Ω G [*] (i)G	HA _Ω PRI [*] (i)G	Widt _Ω (i)	Width _Ω G(i)	Width _Ω PRI(i)
5. Mexico									
1990	0.6738	0.7571	0.6584	2.6786	4.0240	2.5771	0.4375	0.6392	0.4220
1991	0.6378	0.7127	0.6235	2.3264	2.1290	2.4031	0.3831	0.3421	0.3967
1992	0.6303	0.6665	0.6232	2.2162	3.5474	2.1410	0.3823	0.5710	0.3731
1993	0.5920	0.6523	0.5805	1.7495	1.8023	1.7458	0.3171	0.3172	0.3180
1994	0.5942	0.6472	0.5838	1.6578	1.7853	1.6353	0.2797	0.2922	0.2776
1995	0.5677	0.6566	0.5504	1.4232	1.6684	1.3903	0.2278	0.2533	0.2246
1996	0.5497	0.6519	0.5302	1.2409	1.5997	1.1816	0.2177	0.2615	0.2104
1997	0.5519	0.6458	0.5335	1.1893	1.6028	1.1226	0.1941	0.2442	0.1859
1998	0.5423	0.6475	0.5213	1.2418	1.6267	1.1800	0.2116	0.2578	0.2040
1999	0.5433	0.6556	0.5186	1.2559	1.5898	1.2071	0.2065	0.2430	0.2013
2000	0.5457	0.6745	0.5151	1.3083	1.6728	1.2555	0.2332	0.2752	0.2275
2001	0.5720	0.6973	0.5399	2.6578	2.8372	2.8205	0.7093	0.7380	0.7501
2002	0.5737	0.7063	0.5372	1.4740	2.1022	1.3853	0.2139	0.2819	0.2044
2003	0.5651	0.7081	0.5255	1.3623	2.0787	1.2198	0.1964	0.2724	0.1810
2004	0.5698	0.7414	0.5205	1.3932	2.1890	1.2647	0.1968	0.2777	0.1837
2005	0.5877	0.7642	0.5342	1.4670	2.3469	1.2896	0.2063	0.2951	0.1881
2006	0.6057	0.7800	0.5512	1.5217	2.7238	1.2867	0.2133	0.3418	0.1877
2007	0.6218	0.7861	0.5709	1.6311	3.2304	1.3480	0.2260	0.4029	0.1941
2008	0.6373	0.7968	0.5857	1.7632	2.9460	1.5187	0.2423	0.3678	0.2159
2009	0.6589	0.8016	0.6102	2.1009	3.6300	1.7963	0.2814	0.4490	0.2477
2010	0.6620	0.8077	0.6114	2.1290	3.8325	1.8045	0.2847	0.4728	0.2485
2011	0.6673	0.8126	0.6156	2.1196	3.7843	1.7885	0.2813	0.4631	0.2448
2012	0.6731	0.8217	0.6193	2.1907	3.9594	1.8409	0.2895	0.4822	0.2510
Key ratios	α	δ₀	β[*]	Ω	g_A[*]=i(1-β[*])	x=i[*]/g_y[*]	r[*]=α/Ω	r_G[*]=α_G/Ω_G	r_{PRI}[*]=α_{PRI}/Ω_{PRI}
5. Mexico						x=a/(i·b[*])			
1990	0.1458	0.5291	0.7619	1.7292	0.0310	1.4697	0.0843	0.0031	0.1015
1991	0.1423	0.6143	0.7345	1.4807	0.0293	1.7539	0.0961	0.2291	0.0671
1992	0.1851	0.6995	0.7354	1.3596	0.0277	2.4045	0.1362	0.2557	0.1112
1993	0.1031	0.6491	0.6659	1.2738	0.0514	1.0054	0.0809	0.1664	0.0626
1994	0.1030	0.5983	0.6531	1.2893	0.0573	0.9552	0.0799	0.1380	0.0672
1995	0.1037	0.6914	0.6173	1.1590	0.0612	1.0499	0.0895	0.1550	0.0742
1996	0.1372	0.9110	0.5942	1.0345	0.0777	1.2052	0.1326	0.1814	0.1211
1997	0.1473	0.9041	0.5862	1.0339	0.0872	1.1919	0.1425	0.1460	0.1416
1998	0.1012	0.8642	0.5842	1.0473	0.0807	0.8933	0.0967	0.1412	0.0856
1999	0.0990	0.8458	0.5861	1.0551	0.0738	0.9468	0.0938	0.1635	0.0744
2000	0.0986	0.8445	0.5966	1.0627	0.0726	0.9182	0.0928	0.1827	0.0648
2001	0.0944	0.8773	0.7557	1.1486	0.0352	0.8672	0.0822	0.1376	0.0639
2002	0.0939	0.6291	0.6224	1.2036	0.0522	1.0920	0.0780	0.1100	0.0664
2003	0.0965	0.6504	0.6043	1.1594	0.0640	0.9877	0.0833	0.1224	0.0687
2004	0.1078	0.6620	0.6125	1.1673	0.0556	1.2255	0.0923	0.1489	0.0692
2005	0.1053	0.5444	0.6240	1.2597	0.0663	0.9569	0.0836	0.1558	0.0523
2006	0.1284	0.5098	0.6387	1.3222	0.0716	1.0142	0.0971	0.1212	0.0864
2007	0.1304	0.4621	0.6551	1.4120	0.0696	0.9862	0.0923	0.0797	0.0977
2008	0.1267	0.4190	0.6715	1.5151	0.0668	0.9275	0.0836	0.1200	0.0676
2009	0.1000	0.3717	0.7027	1.7169	0.0501	0.8442	0.0582	0.0692	0.0533
2010	0.1034	0.3722	0.7063	1.7346	0.0492	0.8743	0.0596	0.0614	0.0587
2011	0.1148	0.3657	0.7080	1.7536	0.0522	0.9062	0.0654	0.0700	0.0633
2012	0.1153	0.3611	0.7149	1.7990	0.0501	0.9179	0.0641	0.0714	0.0606
Neutral tests	m_K=M/K	m_M=M/Y	m_Π=M/Π	r_(DEBT)-r[*]	r_(DEBT)/r[*]	(e_(US)/g_y^{**})	r[*]-r_(US)	e[*](US)	e_(US)/e[*](US)
5. Mexico						g_y^{**}=g_y[*]/g_y[*](US)	e[*](US)=e(US)-(r[*]-r_(US))		
1990	0.2508	0.4337	2.976	0.716	9.491	0.79	(0.0141)	2.931	1.0048
1991	0.2901	0.4296	3.018	0.604	7.282	0.76	0.0069	3.078	0.9977
1992	0.3005	0.4086	2.207	0.464	4.407	0.69	0.0396	3.155	0.9875
1993	0.3262	0.4155	4.032	0.469	6.798	0.80	(0.0059)	3.100	1.0019
1994	0.3360	0.4332	4.205	0.445	6.571	1.68	(0.0038)	5.321	1.0007
1995	0.3937	0.4563	4.401	0.428	5.784	2.02	0.0061	7.649	0.9992
1996	0.4232	0.4378	3.192	0.196	2.474	1.85	0.0536	7.905	0.9932
1997	0.4367	0.4516	3.065	0.072	1.505	2.07	0.0704	8.154	0.9914
1998	0.4588	0.4805	4.746	0.108	2.121	3.46	0.0284	9.893	0.9971
1999	0.4654	0.4911	4.961	0.107	2.143	4.57	0.0278	9.542	0.9971
2000	0.4438	0.4716	4.784	0.065	1.704	5.07	0.0272	9.599	0.9972
2001	0.4548	0.5225	5.533	0.021	1.251	6.94	0.0064	9.149	0.9993
2002	0.4463	0.5372	5.723	0.023	1.299	3.77	(0.0169)	10.30	1.0016
2003	0.4338	0.5030	5.210	0.007	1.078	3.39	(0.0196)	11.22	1.0017
2004	0.4201	0.4904	4.550	0.003	1.033	4.49	(0.0113)	11.25	1.0010
2005	0.4159	0.5239	4.975	0.011	1.127	3.51	(0.0286)	10.75	1.0027
2006	0.4018	0.5313	4.138	(0.013)	0.864	4.17	(0.0009)	10.88	1.0001
2007	0.3753	0.5299	4.064	(0.014)	0.844	3.43	(0.0085)	10.86	1.0008
2008	0.3783	0.5732	4.525	(0.001)	0.994	2.95	(0.0312)	13.51	1.0023
2009	0.3631	0.6233	6.233	0.021	1.367	(0.00)	(0.0707)	12.99	1.0054
2010	0.3543	0.6146	5.947	0.012	1.193	0.62	(0.0708)	12.29	1.0058
2011	0.3561	0.6244	5.441	0.001	1.016	(0.66)	(0.0649)	13.93	1.0047
2012	0.3479	0.6258	5.428	(0.008)	0.874	0.39	(0.0663)	12.94	1.0051

Data source: KEWT 8.14-1 for 17 Europe Area by sector, 1990-2012, whose original data are from *International Financial Statistics Yearbook*, IMF.

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

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

Cost of capit:	$\text{HA}_r^*(i)$	$r^* - \text{HA}_r^*(i)$	$v^* = r^*/(r^* - gY^*)$	$\text{CC}^*_{\text{REAL}}$	$\text{CC}^*_{\text{REAL(G)}}$	$\text{CC}^*_{\text{REAL(PRI)}}$	$\text{CC}^*_{\text{NOMINAL}}$	$\text{CC}^*_{\text{NOM(G)}}$	$\text{CC}^*_{\text{NOM(P)}}$
1. Argentina	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990	0.4121	(0.0909)	0.8663	(0.1049)	0.0164	(0.4595)	0.3709	(0.0064)	3.7872
1991	1.7692	(0.2112)	0.9398	(0.2248)	0.0224	0.5642	1.6577	(0.0437)	(7.5958)
1992	3.7410	(0.5190)	0.9744	(0.5326)	0.0154	0.3888	3.3067	(0.0364)	(4.0190)
1993	0.3800	0.0485	1.3844	0.0350	(0.0138)	0.3699	0.3095	(0.0261)	4.4942
1994	0.2677	0.0358	1.5913	0.0225	(0.0075)	0.0562	0.1907	(0.0216)	0.6045
1995	0.1778	0.0330	1.8184	0.0182	(0.0107)	0.0339	0.1160	(0.0198)	0.2731
1996	0.1438	0.0216	2.4010	0.0090	(0.0062)	0.0197	0.0689	(0.0445)	0.1536
1997	0.1250	0.0162	3.3190	0.0049	(0.0032)	0.0096	0.0426	(0.0251)	0.0869
1998	0.1027	0.0154	5.0348	0.0031	(0.0050)	0.0066	0.0235	(0.0280)	0.0553
1999	0.0954	0.0199	2.4912	0.0080	(0.0133)	0.0181	0.0463	(0.0741)	0.1062
2000	0.0801	0.0170	2.7953	0.0061	(0.0129)	0.0133	0.0348	(0.0602)	0.0805
2001	0.0667	0.0178	2.3719	0.0075	(0.0110)	(0.0345)	0.0356	(0.6481)	2.8920
2002	0.1044	0.0255	1.6076	0.0159	(0.0101)	(0.0092)	0.0808	(0.4259)	6.9049
2003	0.1127	0.0187	1.9359	0.0096	(0.0085)	(0.0093)	0.0678	(0.1863)	(4.3928)
2004	0.1284	0.0148	2.6315	0.0056	(0.0078)	(0.0069)	0.0544	(0.0858)	0.5564
2005	0.1418	0.0168	2.2668	0.0074	(0.0107)	(0.0111)	0.0700	(0.3736)	(1.4344)
2006	0.1819	0.0200	1.9639	0.0102	(0.0131)	(0.0216)	0.1028	(0.1655)	(0.4988)
2007	0.1847	0.0189	2.0565	0.0092	(0.0095)	(0.0166)	0.0990	(0.1296)	(0.4911)
2008	0.2128	0.0103	1.8796	0.0055	(0.0048)	(0.0090)	0.1187	(0.1226)	(0.5591)
2009	0.1416	0.0266	1.4758	0.0180	(0.0091)	(0.0107)	0.1140	(0.1658)	(0.9152)
2010	0.2098	0.0608	1.5792	0.0385	(0.0419)	(0.0385)	0.1713	(0.0298)	(1.1158)
2011	0.2273	0.0660	1.6698	0.0395	(0.0330)	(0.0643)	0.1756	(0.0850)	(0.9677)
2012	0.1827	0.0623	1.7509	0.0356	(0.0772)	(0.0494)	0.1400	(0.0506)	(1.0348)
Speed years	$1/\lambda^*$	$1/\lambda_G^*$	$1/\lambda_{\text{PRI}}^*$	i_{actual}	$i_{\text{endoge.}}$	difference	Δd	$\text{SPRI} - \text{IPRI}$	bop
1. Argentina	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL
1990	8.35	12.10	11.36	0.0116	(0.0883)	0.0999	(0.0020)	0.0497	0.0477
1991	11.86	4.48	15.56	0.1166	(0.0942)	0.2108	(0.0058)	0.0099	0.0041
1992	15.84	4.07	17.17	0.1329	(0.0700)	0.2029	(0.0004)	(0.0277)	(0.0281)
1993	8.04	57.80	6.63	0.1535	0.1217	0.0318	(0.0074)	(0.0334)	(0.0408)
1994	7.90	343.70	7.09	0.1606	0.1267	0.0339	(0.0081)	(0.0420)	(0.0501)
1995	7.93	53.85	7.72	0.1445	0.1147	0.0298	(0.0061)	(0.0187)	(0.0248)
1996	6.89	16.94	8.68	0.1457	0.1296	0.0160	(0.0214)	(0.0085)	(0.0299)
1997	5.12	18.05	7.73	0.1560	0.1442	0.0118	(0.0165)	(0.0320)	(0.0485)
1998	2.19	21.59	5.63	0.1606	0.1497	0.0109	(0.0154)	(0.0404)	(0.0558)
1999	232.29	17.98	5.22	0.1451	0.1168	0.0283	(0.0318)	(0.0168)	(0.0487)
2000	54.39	23.40	33.79	0.1304	0.1127	0.0177	(0.0267)	(0.0096)	(0.0362)
2001	45.75	1.00	1.31	0.1142	0.0945	0.0198	(0.8432)	0.8257	(0.0174)
2002	59.05	1.66	0.67	0.0964	0.0897	0.0067	(0.8044)	0.8910	0.0866
2003	62.70	6.49	1.55	0.1219	0.1143	0.0076	(0.3704)	0.4268	0.0564
2004	52.07	13.44	10.03	0.1545	0.1610	(0.0065)	(0.1615)	0.1782	0.0168
2005	59.36	0.47	7.97	0.1728	0.1585	0.0144	(0.8836)	0.9112	0.0277
2006	80.41	2.27	60.24	0.1881	0.1716	0.0165	(0.3644)	0.3989	0.0345
2007	111.06	8.30	90.51	0.1950	0.1799	0.0151	(0.2741)	0.2993	0.0253
2008	146.62	8.37	38.31	0.1867	0.1785	0.0082	(0.2365)	0.2680	0.0315
2009	332.92	5.62	18.09	0.1685	0.0903	0.0783	(0.3476)	0.4412	0.0936
2010	6.20	33.85	0.74	#VALUE!	0.1302	#VALUE!	(0.0327)	0.0999	0.0672
2011	6.60	14.80	1.58	0.1048	0.1526	(0.0478)	(0.0992)	0.1516	0.0524
2012	1.80	23.91	0.28	0.8605	0.1318	0.7286	(0.0513)	0.1006	0.0493
Employment	n	$n_{\text{EQU(G)-n}}$	$n_{\text{EQU(PRI)-n}}$	$n_{\text{EQU-n}}$	$n_{\text{EQU(G)-nG}}$	$n_{\text{EQU(PRI)-nP}}$	Unem.rate(act)	GCP1(actual)	Infla. rate
1. Argentina	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	0.4409
1991	0.0135	0.0000	0.0000	0.0000	(0.2214)	0.0629	(0.0284)	1.7206	0.5112
1992	0.0136	0.0000	0.0000	0.0000	0.0101	(0.0037)	(0.0324)	0.2485	0.7890
1993	0.0135	0.0000	0.0000	0.0000	0.3787	(0.1378)	(0.0410)	0.1073	0.1815
1994	0.0133	0.0000	0.0000	0.0000	0.0210	(0.0042)	(0.0527)	0.0409	0.1642
1995	0.0149	0.0000	0.0000	0.0000	(0.0036)	0.0007	(0.0720)	0.0341	0.1455
1996	0.0126	0.0000	0.0000	0.0000	0.0677	(0.0133)	(0.0747)	0.0020	0.0835
1997	0.0113	0.0000	0.0000	0.0000	0.0344	(0.0062)	(0.0603)	0.0050	0.0762
1998	0.0123	0.0000	0.0000	0.0000	(0.0370)	0.0064	(0.0545)	0.0089	0.0910
1999	0.0119	0.0000	0.0000	0.0000	(0.1199)	0.0217	(0.0608)	(0.0118)	0.0905
2000	0.0109	0.0000	0.0000	0.0000	0.0032	(0.0007)	(0.0662)	(0.0089)	0.0939
2001	0.0103	0.0000	0.0000	0.0000	(0.0268)	0.0055	(0.0815)	(0.0110)	0.2593
2002	0.0096	0.0000	0.0000	0.0000	0.0907	(0.0193)	(0.0788)	0.2588	0.4913
2003	0.0090	0.0000	0.0000	0.0000	0.0754	(0.0143)	(0.0756)	0.1349	0.1728
2004	0.0092	0.0000	0.0000	0.0000	0.0132	(0.0023)	(0.0612)	0.0439	0.0530
2005	0.0094	0.0000	0.0000	0.0000	(0.0889)	0.0152	(0.0522)	0.0834	0.0448
2006	0.0098	0.0000	0.0000	0.0000	(0.0964)	0.0182	(0.0459)	0.1090	0.0663
2007	0.0097	0.0000	0.0000	0.0000	(0.0392)	0.0083	(0.0383)	0.0884	0.0916
2008	0.0048	0.0000	0.0000	0.0000	(0.0520)	0.0115	(0.0356)	0.0862	0.1844
2009	0.0086	0.0000	0.0000	0.0000	(0.0608)	0.0143	(0.0392)	0.0625	0.1300
2010	0.0223	0.0000	0.0000	0.0000	(0.1335)	0.0295	(0.0351)	0.2784	0.0448
2011	0.0265	0.0000	0.0000	0.0000	(0.1157)	0.0272	(0.0338)	0.2883	0.0749
2012	0.0267	0.0000	0.0000	0.0000	(0.0900)	0.0227	(0.0324)	0.3345	0.0783

Data source: KEWT 8.14-4 for 19 Rest Area by sector, 1990-2012, 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

Robustnes	HA _B [*] (i)	HA _B [*] (i)G	HA _B [*] (i)PRI	HA _Ω [*] (i)	HA _Ω [*] G*(i)G	HA _Ω [*] PRI*(i)PRI	Widt _Ω (i)	Width _Ω G(i)G	Width _Ω PRI(i)PRI
1. Argentina		G	PRI		G	PRI		G	PRI
1990	0.5498	0.8340	0.1242	0.6769	1.4858	0.0824	0.1148	0.2298	0.0291
1991	0.2753	0.6307	(0.1234)	0.2084	1.2630	(0.0547)	0.0484	0.2017	#NUM!
1992	0.1631	0.5687	(0.2720)	0.1023	1.0031	(0.1024)	0.0315	0.1690	#NUM!
1993	0.2108	0.5921	0.0287	0.2671	3.0335	0.0280	0.0644	0.4053	0.0184
1994	0.2804	0.5913	0.1546	0.3903	2.1361	0.1753	0.0813	0.2966	0.0493
1995	0.3399	0.5970	0.2452	0.5434	3.1364	0.3247	0.1076	0.4377	0.0761
1996	0.3865	0.6341	0.3009	0.6490	1.8398	0.4405	0.1125	0.2530	0.0861
1997	0.4274	0.6566	0.3523	0.7552	1.9392	0.5492	0.1189	0.2492	0.0949
1998	0.4737	0.6671	0.4117	0.9251	2.2339	0.7080	0.1441	0.2945	0.1181
1999	0.5236	0.6793	0.4703	1.1663	2.5937	0.9158	0.1685	0.3334	0.1390
2000	0.5484	0.6930	0.4998	1.3043	2.9027	1.0339	0.1768	0.3526	0.1466
2001	0.5815	0.8814	0.0926	1.5604	10.7042	0.0828	0.1982	1.1552	0.0278
2002	0.5769	0.9291	(6.5920)	1.4296	18.0646	(0.6821)	0.1770	1.8392	#NUM!
2003	0.5567	0.9366	12.3087	1.2468	12.9877	(0.9315)	0.1537	1.2730	0.0255
2004	0.5577	0.9345	(25.4282)	1.1824	12.8430	(0.8025)	0.1484	1.2709	#NUM!
2005	0.5597	0.9450	2.3652	1.1740	77.3182	(1.2504)	0.1484	7.6980	0.0792
2006	0.5661	0.9391	2.4942	1.1376	45.7895	(1.1916)	0.1465	4.6689	0.0771
2007	0.5609	0.9329	2.9673	1.1089	14.2353	(1.1851)	0.1429	1.4492	0.0700
2008	0.5528	0.9233	4.3711	1.0119	12.3871	(0.9807)	0.0934	0.8929	0.0334
2009	0.5375	0.9209	3.0811	1.1463	13.7338	(1.1689)	0.1393	1.3219	0.0624
2010	0.4673	0.8746	(2.2040)	0.8981	(18.6733)	(0.5295)	0.1840	2.7056	#NUM!
2011	0.4733	0.8690	(1.7701)	0.8989	11.8471	(0.4923)	0.1996	2.0141	#NUM!
2012	0.4392	0.8534	(1.7127)	0.8619	(13.3046)	(0.4998)	0.1969	2.0752	#NUM!
Key ratios	α	δ₀	β[*]	Ω	g_A[*]=(1-β[*])	x=r[*]/g_Y[*]	r[*]=α/Ω	r_G[*]=α_G/Ω_G	r_{PRI}[*]=α_{PRI}/Ω_{PRI}
1. Argentina						x=a/(i·b[*])	G	PRI	
1990	0.2790	(1.8691)	0.4877	0.8683	(0.0452)	(6.4772)	0.3213	(0.0120)	3.6716
1991	0.3687	(0.3163)	0.2507	0.2367	(0.0706)	(15.6175)	1.5580	(0.0701)	(7.7779)
1992	0.3826	(0.1941)	0.1438	0.1187	(0.0599)	(38.0251)	3.2220	(0.0686)	(4.1601)
1993	0.1015	(0.2005)	0.2315	0.2369	0.0935	3.6018	0.4285	(0.0005)	4.6578
1994	0.1045	(0.3046)	0.3063	0.3443	0.0879	2.6913	0.3034	0.0166	0.7473
1995	0.0966	(0.5808)	0.3790	0.4583	0.0712	2.2219	0.2109	0.0077	0.3928
1996	0.0934	(0.7794)	0.4203	0.5641	0.0752	1.7138	0.1655	0.0467	0.2521
1997	0.0944	(1.3654)	0.4575	0.6684	0.0782	1.4312	0.1413	0.0630	0.1890
1998	0.0950	7.3455	0.5086	0.8045	0.0736	1.2478	0.1181	0.0406	0.1583
1999	0.1113	1.1251	0.5704	0.9651	0.0502	1.6706	0.1153	(0.0078)	0.1762
2000	0.1045	0.8118	0.5955	1.0756	0.0456	1.5570	0.0972	(0.0092)	0.1468
2001	0.1041	0.6307	0.6376	1.2321	0.0342	1.7289	0.0845	(0.0409)	2.0307
2002	0.1493	0.7376	0.6292	1.1488	0.0333	2.6458	0.1300	(0.0204)	(0.3014)
2003	0.1405	0.8234	0.5941	1.0696	0.0464	2.0685	0.1313	0.0123	(0.1488)
2004	0.1518	0.8297	0.5845	1.0599	0.0669	1.6129	0.1432	0.0150	(0.1818)
2005	0.1665	0.8621	0.5871	1.0497	0.0654	1.7894	0.1586	(0.0454)	(0.2234)
2006	0.2069	0.9336	0.5916	1.0249	0.0701	2.0375	0.2018	(0.0417)	(0.2722)
2007	0.2048	0.9829	0.5847	1.0059	0.0747	1.9465	0.2036	0.0032	(0.2040)
2008	0.2153	1.1363	0.5644	0.9653	0.0778	2.1369	0.2230	0.0005	(0.2614)
2009	0.1623	1.1101	0.5799	0.9652	0.0379	3.1016	0.1682	(0.0096)	(0.1844)
2010	0.1884	3.9349	0.5308	0.6964	0.0611	2.7264	0.2705	(0.0140)	(0.4699)
2011	0.2043	3.4416	0.5369	0.6967	0.0707	2.4931	0.2932	(0.0168)	(0.5698)
2012	0.1575	9.9900	0.5123	0.6427	0.0643	2.3317	0.2450	(0.0331)	(0.4749)
Neutral tests	m_K=M/K	m=M/Y	m_π=M/Π	r_(DEBT)-r[*]	r_(DEBT)/r[*]	(e_(US)/g_Y^{**})	r[*]-r[*](US)	e[*](US)	e[*](US)/e[*](US)
1. Argentina						g_Y^{**}=g_Y[*]/g_Y[*](US)	e[*](US)=e(US)+(r[*]-r[*](US))		
1990	0.1453	0.1262	0.452	0.029	1.089	(0.05)	0.2229	0.7814	0.7147
1991	0.4902	0.1160	0.315	(1.258)	0.193	(0.04)	1.4688	2.4673	0.4047
1992	1.2659	0.1503	0.393	(2.952)	0.084	(0.04)	3.1254	4.1159	0.2407
1993	0.9015	0.2135	2.104	(0.198)	0.537	0.10	0.3417	1.3402	0.7450
1994	0.6702	0.2308	2.209	(0.103)	0.659	0.15	0.2198	1.2193	0.8198
1995	0.4883	0.2238	2.316	(0.032)	0.847	0.15	0.1275	1.1275	0.8869
1996	0.4469	0.2521	2.700	(0.060)	0.635	0.17	0.0865	1.0860	0.9203
1997	0.4400	0.2941	3.115	(0.049)	0.654	0.22	0.0692	1.0687	0.9353
1998	0.3957	0.3183	3.350	(0.012)	0.901	0.29	0.0498	1.0493	0.9525
1999	0.3620	0.3494	3.138	(0.005)	0.957	0.55	0.0493	1.0488	0.9530
2000	0.3290	0.3539	3.385	0.014	1.141	0.67	0.0316	1.0311	0.9693
2001	0.1289	0.1588	1.525	0.193	3.278	0.65	0.0088	1.0083	0.9913
2002	0.1255	0.1442	0.966	0.387	3.977	1.49	0.0350	3.3550	0.9896
2003	0.1808	0.1933	1.377	0.060	1.458	0.89	0.0284	2.9334	0.9903
2004	0.2152	0.2281	1.502	(0.075)	0.473	0.73	0.0396	2.9986	0.9868
2005	0.2229	0.2340	1.406	(0.097)	0.388	0.74	0.0464	3.0584	0.9848
2006	0.2210	0.2265	1.095	(0.116)	0.428	0.96	0.1078	3.1498	0.9658
2007	0.2287	0.2301	1.123	(0.093)	0.543	1.07	0.1279	3.2569	0.9607
2008	0.2170	0.2095	0.973	(0.028)	0.873	0.85	0.1390	3.5720	0.9611
2009	0.2302	0.2222	1.369	(0.012)	0.931	(0.28)	(0.9159)	2.8641	1.3198
2010	0.3513	0.2446	1.298	(0.165)	0.390	0.29	(3.8135)	0.1425	27.762
2011	0.3397	0.2367	1.159	(0.152)	0.481	48.50	(3.7908)	0.4932	8.6864
2012	0.4306	0.2767	1.757	(0.104)	0.574	128.71	(3.8390)	1.0590	4.6251

Data source: KEWT 8.14-4 for 19 Europe Area by sector, 1990-2012, whose original data are from *International Financial Statistics Yearbook*, IMF.

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

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

Cost of capit:	$\text{HA}_{r^*(i)}$	$r^* - \text{HA}_{r^*(i)}$	$v^* = r^*/(r^* - gY^*)$	$\text{CC}^*_{\text{REAL}}$	$\text{CC}^*_{\text{REAL(G)}}$	$\text{CC}^*_{\text{REAL(PRI)}}$	$\text{CC}^*_{\text{NOMINAL}}$	$\text{CC}^*_{\text{NOM(G)}}$	$\text{CC}^*_{\text{NOM(P)}}$
2. Bolivia	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990	(0.0026)	0.1774	1.1399	0.1556	(0.4344)	0.0033	0.1533	(0.9601)	0.2488
1991	0.0963	0.1062	1.2974	0.0819	(0.1559)	0.1532	0.1561	(0.6680)	0.2393
1992	0.1192	0.0973	1.3505	0.0721	(0.3963)	0.1114	0.1603	(0.7754)	0.2525
1993	0.1213	0.0982	1.3347	0.0736	(0.0559)	0.1106	0.1645	(0.8755)	0.2630
1994	0.0891	0.1398	1.2076	0.1158	(0.3912)	0.1624	0.1896	(0.6188)	0.2673
1995	0.1212	0.1206	1.2417	0.0971	(0.0905)	0.0739	0.1947	(0.2825)	0.2575
1996	0.1428	0.1083	1.2893	0.0840	(0.0621)	0.0637	0.1947	(0.2371)	0.2631
1997	0.1656	0.0688	1.5258	0.0451	(0.0524)	0.0841	0.1536	(0.3195)	0.2401
1998	0.1574	0.0524	2.0648	0.0254	(0.0697)	0.0449	0.1016	(0.2970)	0.1771
1999	0.1322	0.0627	1.5147	0.0414	(0.0769)	0.0384	0.1286	(0.2898)	0.2188
2000	0.1225	0.0645	1.4785	0.0436	(0.2267)	0.0381	0.1265	(0.3881)	0.2283
2001	0.0119	0.1729	1.3095	0.1320	(0.3212)	0.1884	0.1412	(0.5705)	0.3008
2002	0.0991	0.0793	1.3550	0.0585	(0.1397)	0.1030	0.1317	(0.6089)	0.3115
2003	0.0469	0.1393	1.1601	0.1201	(0.5033)	0.2317	0.1605	(0.5475)	0.3243
2004	0.1040	0.0930	1.2544	0.0742	(0.3837)	(0.0286)	0.1570	(0.4996)	0.3144
2005	0.0955	0.1142	1.1936	0.0956	0.0320	0.0688	0.1757	0.0532	0.2073
2006	0.1154	0.1437	1.1449	0.1255	0.6745	0.0564	0.2263	0.4496	0.1843
2007	0.1623	0.1046	1.1914	0.0878	0.0804	0.0910	0.2240	0.3190	0.2027
2008	0.2138	0.0719	1.2750	0.0564	0.2754	0.0382	0.2241	0.4933	0.1694
2009	0.1044	0.0575	1.3953	0.0412	(0.1148)	0.0535	0.1160	(0.2133)	0.1602
2010	0.1190	0.0658	1.3490	0.0488	(0.0648)	0.0589	0.1370	(0.1353)	0.1729
2011	0.1559	0.0486	1.4794	0.0328	(0.0224)	0.0491	0.1382	(0.1477)	0.1840
2012	0.1505	0.0699	1.3324	0.0525	0.1153	0.0420	0.1654	0.3792	0.1315
Speed years	$1/\lambda^*$	$1/\lambda_G^*$	$1/\lambda_{\text{PRI}}^*$	i_{actual}	$i_{\text{endoge.}}$	difference	Δd	$\text{SPRI} - i_{\text{PRI}}$	bop
2. Bolivia	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL
1990	53.55	9.73	55.13	0.0988	0.0173	0.0815	(0.0582)	0.0453	(0.0130)
1991	99.35	7.38	63.46	0.1139	0.0515	0.0624	(0.0529)	(0.0088)	(0.0617)
1992	323.82	5.55	1360.10	0.1283	0.0641	0.0643	(0.0510)	(0.0503)	(0.1013)
1993	223.18	66.71	385.11	0.1311	0.0625	0.0685	(0.0533)	(0.0512)	(0.1046)
1994	83.53	1.63	79.10	0.1168	0.0379	0.0789	(0.0367)	(0.0255)	(0.0622)
1995	104.84	9.00	7.99	0.1222	0.0477	0.0745	(0.0243)	(0.0278)	(0.0521)
1996	15.54	7.29	4.05	0.1272	0.0588	0.0684	(0.0260)	(0.0267)	(0.0527)
1997	1.31	5.08	10.02	0.1492	0.0970	0.0522	(0.0481)	(0.0446)	(0.0927)
1998	3.75	3.29	5.62	0.1821	0.1416	0.0405	(0.0460)	(0.0988)	(0.1448)
1999	51.04	7.44	10.21	0.1502	0.0873	0.0629	(0.0459)	(0.0710)	(0.1169)
2000	164.89	34.24	13.26	0.1407	0.0803	0.0604	(0.0501)	(0.0515)	(0.1017)
2001	28.81	12.21	107.83	0.1095	0.0367	0.0728	(0.0818)	0.0224	(0.0594)
2002	107.61	2.17	189.63	0.1231	0.0595	0.0636	(0.1056)	0.0372	(0.0683)
2003	65.14	30.51	78.14	0.0996	0.0251	0.0745	(0.0789)	0.0703	(0.0086)
2004	216.53	33.99	21.62	0.0919	0.0467	0.0452	(0.0669)	0.0745	0.0076
2005	128.18	106.97	61.12	0.1022	0.0366	0.0656	0.0045	0.0343	0.0388
2006	263.96	40.08	10.87	0.1124	0.0322	0.0803	0.0484	0.0528	0.1012
2007	18.54	2.63	55.60	0.1269	0.0470	0.0799	0.0270	0.0576	0.0846
2008	2.71	231.77	3.33	0.1357	0.0736	0.0620	0.0463	0.0317	0.0780
2009	98.55	130.02	92.32	260818	0.0671	260818	(0.0259)	0.0576	0.0317
2010	124.54	179.61	107.97	329075	0.0675	329075	(0.0169)	0.0941	0.0771
2011	70.33	5.11	403.22	354024	0.0962	354024	(0.0299)	0.0940	0.0641
2012	502.82	4.62	181.69	357252	0.0749	357251	0.0364	0.0692	0.1056
Employment	n	$n_{\text{EQU(G)-n}}$	$n_{\text{EQU(PRI)-n}}$	$n_{\text{EQU-n}}$	$n_{\text{EQU(G)-nG}}$	$n_{\text{EQU(PRI)-nP}}$	Unem.rate(act)	$g_{\text{CPI}}(\text{actual})$	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	0.0529
1991	0.0244	0.0000	0.0000	0.0000	(0.0295)	0.0054	(0.0266)	0.2140	0.1089
1992	0.0253	0.0000	0.0000	0.0000	(0.0722)	0.0136	(0.0227)	0.1199	0.0940
1993	0.0246	(0.0236)	0.0000	0.0000	(0.0645)	0.0083	(0.0270)	0.0852	0.0864
1994	0.0240	0.0000	0.0000	0.0000	(0.0119)	0.0026	(0.0140)	0.0797	0.0248
1995	0.0235	0.0000	(0.0135)	0.0000	0.0025	(0.0140)	(0.0162)	0.1013	0.0480
1996	0.0243	0.0000	(0.0143)	0.0000	0.0193	(0.0185)	(0.0171)	0.1240	0.0681
1997	0.0237	0.0000	0.0000	0.0000	(0.0443)	0.0094	(0.0167)	0.0472	0.0960
1998	0.0270	0.0000	0.0000	0.0000	(0.0241)	0.0054	(0.0225)	0.0773	0.1042
1999	0.0213	0.0000	(0.0113)	0.0000	(0.0454)	(0.0009)	(0.0324)	0.0224	0.0976
2000	0.0209	0.0000	(0.0109)	0.0000	0.0192	(0.0155)	(0.0338)	0.0451	0.0923
2001	0.0409	0.0000	(0.0259)	0.0000	(0.0850)	(0.0058)	(0.0383)	0.0163	(0.0283)
2002	0.0208	0.0000	(0.0108)	0.0000	(0.0139)	(0.0072)	(0.0392)	0.0092	0.0418
2003	0.0192	0.0000	0.0000	0.0000	(0.0332)	0.0088	(0.0437)	0.0341	(0.0363)
2004	0.0189	0.0000	(0.0218)	0.0000	0.0153	(0.0260)		0.0440	0.0070
2005	0.0185	0.0000	(0.0085)	0.0000	0.0151	(0.0126)		0.0204	(0.0009)
2006	0.0182	0.0000	(0.0082)	0.0000	0.0883	(0.0316)		0.0430	(0.0272)
2007	0.0168	0.0000	0.0000	0.0000	0.0216	(0.0051)		0.0872	0.0005
2008	0.0155	0.0000	0.0000	0.0000	0.0480	(0.0111)		0.1393	0.0427
2009	0.0163	0.0000	0.0000	0.0000	(0.0879)	0.0192		0.0341	0.0549
2010	0.0170	0.0000	0.0000	0.0000	0.0452	(0.0109)		0.0247	0.0181
2011	0.0157	0.0000	0.0000	0.0000	(0.0044)	0.0010		0.0979	0.0330
2012	0.0174	0.0000	0.0000	0.0000	0.0122	(0.0028)		0.0459	0.0094

Data source: KEWT 8.14-4 for 19 Rest Area by sector, 1990-2012, 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	$HA_{\beta}^*(i)$	$HA_{\beta}^*(i)G$	$HA_{\beta}^*(i)PRI$	$HA_{\Omega}^*(i)$	$HA_{\Omega}^*(i)G$	$HA_{\Omega}^*(i)PRI$	$Widt_{\Omega}(i)$	$Width_{\Omega}G(i)$	$Width_{\Omega}PRI(i)$
2. Bolivia									
1990	0.4936	0.3064	0.5120	(53.9625)	1.3033	0.8378	7.9004	0.2878	0.0117
1991	0.4599	0.3233	0.4797	1.4963	0.8253	2.0014	0.2915	0.2079	0.3683
1992	0.4508	0.3034	0.4736	1.2393	1.2565	1.2346	0.2546	0.2909	0.2498
1993	0.4488	0.2802	0.4747	1.2246	0.6239	1.1859	0.2490	0.0364	0.2385
1994	0.4329	0.2730	0.4588	1.6358	1.2665	1.6813	0.3117	0.2763	0.3154
1995	0.4150	0.2861	0.4337	1.1843	0.6277	0.8709	0.2371	0.1579	0.1210
1996	0.4045	0.3160	0.4170	0.9997	0.6538	0.7689	0.2112	0.1642	0.1103
1997	0.4213	0.3781	0.4301	0.8629	0.7925	0.9248	0.1865	0.1881	0.1943
1998	0.4505	0.4114	0.4587	0.9115	1.0149	0.8954	0.2074	0.2415	0.2019
1999	0.4737	0.4351	0.4795	1.1089	1.2192	0.8840	0.2143	0.2487	0.1217
2000	0.4816	0.4347	0.4889	1.1869	2.4661	0.8928	0.2239	0.4421	0.1221
2001	0.4896	0.4410	0.4947	12.1905	2.7857	1.9665	2.5459	0.7020	0.2831
2002	0.4904	0.4658	0.4939	1.4529	1.9885	1.0850	0.2631	0.3935	0.1409
2003	0.4758	0.4409	0.4847	3.0347	16.1576	2.4408	0.4756	2.3527	0.3865
2004	0.4632	0.4239	0.4676	1.3755	4.7412	0.6187	0.2398	0.7469	0.0499
2005	0.4522	0.4155	0.4591	1.5208	1.6571	1.0486	0.2578	0.2816	0.1402
2006	0.4263	0.3998	0.4303	1.3780	(1.0045)	0.9271	0.2350	0.0676	0.1284
2007	0.4177	0.4123	0.4189	0.9764	0.7285	1.0994	0.1721	0.1358	0.1893
2008	0.4140	0.3990	0.4172	0.7753	1.1040	0.7791	0.1385	0.1773	0.1400
2009	0.5245	0.4052	0.5464	1.4308	1.6540	1.4264	0.2298	0.2734	0.2268
2010	0.5174	0.4057	0.5373	1.3703	1.3804	1.3800	0.2262	0.2391	0.2254
2011	0.5033	0.4226	0.5187	1.0869	0.8771	1.1500	0.1806	0.1617	0.1871
2012	0.5015	0.4287	0.5154	1.1889	0.8017	1.2868	0.2034	0.1470	0.2176
Key ratios	α	δ_0	β^*	Ω	$g_{\Lambda}^*=(1-\beta^*)$	$x=\frac{r^*}{g_{\Lambda}^*}$	$r^*=\alpha/\Omega$	$r_{G}^*=\alpha_G/\Omega_G$	$r_{PRI}^*=\alpha_{PRI}/\Omega_{PRI}$
2. Bolivia						$x=a/(i \cdot b^*)$			
1990	0.1429	1.0484	1.0158	0.8176	(0.0003)	8.1470	0.1747	(0.9119)	0.2563
1991	0.1441	1.5844	0.6417	0.7114	0.0184	4.3627	0.2025	(0.5637)	0.2773
1992	0.1478	1.9569	0.5985	0.6824	0.0257	3.8527	0.2166	(0.7260)	0.3098
1993	0.1486	2.0069	0.5958	0.6767	0.0253	3.9877	0.2196	(0.8598)	0.3215
1994	0.1458	1.6702	0.6623	0.6368	0.0128	5.8158	0.2290	(0.5807)	0.3069
1995	0.1435	2.5016	0.5860	0.5936	0.0197	5.1367	0.2418	(0.2092)	0.2923
1996	0.1427	4.1769	0.5443	0.5686	0.0268	4.4566	0.2511	(0.1444)	0.3044
1997	0.1429	17.4330	0.5075	0.6095	0.0478	2.9019	0.2344	(0.1748)	0.3078
1998	0.1434	5.2796	0.5222	0.6838	0.0677	1.9391	0.2098	(0.1818)	0.2838
1999	0.1466	2.0065	0.5703	0.7522	0.0375	2.9429	0.1949	(0.2095)	0.2758
2000	0.1454	1.7198	0.5864	0.7778	0.0332	3.0898	0.1870	(0.3524)	0.2883
2001	0.1456	1.0885	0.9369	0.7876	0.0023	4.2309	0.1848	(0.4979)	0.3247
2002	0.1440	1.3905	0.6340	0.8069	0.0218	3.8168	0.1784	(0.5183)	0.3417
2003	0.1423	1.2100	0.7829	0.7639	0.0054	7.2459	0.1862	(0.5266)	0.3513
2004	0.1430	1.6514	0.6205	0.7259	0.0177	4.9302	0.1970	(0.4750)	0.3463
2005	0.1452	1.6174	0.6444	0.6927	0.0130	6.1648	0.2097	0.0839	0.2374
2006	0.1590	1.9537	0.6252	0.6138	0.0121	7.9029	0.2591	0.4617	0.2170
2007	0.1584	4.1547	0.5412	0.5937	0.0216	6.2236	0.2669	0.3857	0.2401
2008	0.1658	(8.4135)	0.4856	0.5803	0.0379	4.6368	0.2857	0.5211	0.2381
2009	0.1494	1.1493	0.6309	0.9230	0.0248	3.5297	0.1619	(0.1830)	0.2089
2010	0.1630	1.2453	0.6248	0.8824	0.0253	3.8654	0.1847	(0.0998)	0.2229
2011	0.1694	1.6609	0.5707	0.8286	0.0413	3.0858	0.2045	(0.0438)	0.2431
2012	0.1789	1.5383	0.5957	0.8118	0.0303	4.0087	0.2204	0.4366	0.1860
Neutral tests	$m_K=M/K$	$m_Y=M/Y$	$m_{\Pi}=M/\Pi$	$r_{(DEBT)}-r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)})/g_{\Lambda}^{**}$	$r^*-r^*(US)$	$e^*(US)$	$e_{(US)}/e^*(US)$
2. Bolivia						$g_{\Lambda}^{**}=g_{\Lambda}^*/g_{\Lambda}^*(US)$		$e^*(US)=e(US)+(r^*-r^*(US))$	
1990	0.1208	0.0988	0.6916	0.056	1.318	(64.1831)	0.0764	3.4764	0.9780
1991	0.1615	0.1149	0.7972	0.013	1.062	0.8033	0.1134	3.8584	0.9706
1992	0.1979	0.1351	0.9139	(0.025)	0.883	0.5363	0.1200	4.2150	0.9715
1993	0.2406	0.1628	1.0957	(0.035)	0.841	1.5524	0.1328	4.6078	0.9712
1994	0.2895	0.1843	1.2643	(0.064)	0.719	4.7249	0.1453	4.8403	0.9700
1995	0.3206	0.1903	1.3259	(0.073)	0.697	2.5037	0.1585	5.0935	0.9689
1996	0.4226	0.2403	1.6834	(0.075)	0.703	2.4014	0.1721	5.3571	0.9679
1997	0.4499	0.2742	1.9194	(0.070)	0.703	1.8216	0.1623	5.5273	0.9706
1998	0.4048	0.2768	1.9296	(0.053)	0.747	1.6806	0.1415	5.7865	0.9755
1999	0.3478	0.2616	1.7849	(0.035)	0.823	4.2312	0.1289	6.1189	0.9789
2000	0.3527	0.2743	1.8865	(0.030)	0.839	5.6575	0.1214	6.5114	0.9814
2001	0.4076	0.3210	2.2050	(0.040)	0.782	62.149	0.1091	6.9291	0.9843
2002	0.3793	0.3060	2.1259	(0.057)	0.679	5.1579	0.0835	7.5735	0.9890
2003	0.4329	0.3307	2.3247	(0.083)	0.553	20.415	0.0833	7.9133	0.9895
2004	0.3619	0.2627	1.8373	(0.097)	0.508	7.5669	0.0933	8.1433	0.9885
2005	0.4135	0.2864	1.9721	(0.096)	0.540	10.250	0.0975	8.1375	0.9880
2006	0.5036	0.3091	1.9437	(0.143)	0.450	15.469	0.1650	8.1450	0.9797
2007	0.6542	0.3884	2.4514	(0.162)	0.394	9.5606	0.1911	7.8111	0.9755
2008	0.7114	0.4129	2.4905	(0.171)	0.401	3.8048	0.2016	7.2216	0.9721
2009	0.5234	0.4831	3.2329	(0.049)	0.694	(0.7995)	0.0778	7.0978	0.9890
2010	0.5522	0.4873	2.9891	(0.101)	0.454	1.2639	0.1007	7.0907	0.9858
2011	0.5752	0.4766	2.8135	(0.123)	0.399	139.72	0.1204	7.0304	0.9829
2012	0.6123	0.4971	2.7779	(0.141)	0.360	381.49	0.1364	7.1564	0.9809

Data source: KEWT 8.14-4 for 19 Rest Area by sector, 1990-2012, whose original data are from *International Financial Statistics Yearbook*, IMF.

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

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

Cost of capit:	$\text{HA}_{F^*(i)}$	$r^* - \text{HA}_{F^*(i)}$	$v^* = \pi^*/(r^* - g_Y^*)$	$\text{CC}^*_{\text{REAL}}$	$\text{CC}^*_{\text{REAL(G)}}$	$\text{CC}^*_{\text{REAL(PRI)}}$	$\text{CC}^*_{\text{NOMINAL}}$	$\text{CC}^*_{\text{NOMI(G)}}$	$\text{CC}^*_{\text{NOMI(P)}}$
4. Chile	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990	0.0870	0.0126	6.9633	0.0018	0.0044	(0.0000)	0.0143	0.0716	(0.0002)
1991	0.0784	0.0196	7.0170	0.0028	0.0118	(0.0007)	0.0140	0.0834	(0.0033)
1992	0.0970	0.0188	8.1917	0.0023	0.0132	(0.0026)	0.0141	0.1196	(0.0143)
1993	0.1226	0.0193	8.3458	0.0023	0.0137	(0.0006)	0.0170	0.1024	(0.0041)
1994	0.1797	0.0243	2.9262	0.0083	0.0105	0.0076	0.0697	0.0959	0.0629
1995	0.0996	0.0361	4.8173	0.0075	0.0357	0.0022	0.0282	0.1129	0.0085
1996	0.0756	0.0146	(10.3861)	(0.0014)	0.0217	(0.0051)	(0.0087)	0.1035	(0.0332)
1997	0.0727	0.0127	(7.8220)	(0.0016)	0.0170	(0.0047)	(0.0109)	0.0936	(0.0330)
1998	0.0532	0.0102	(3.0849)	(0.0033)	0.0062	(0.0059)	(0.0205)	0.0456	(0.0352)
1999	0.0444	0.0122	(25.9550)	(0.0005)	(0.0007)	(0.0005)	(0.0022)	(0.0062)	(0.0020)
2000	0.0482	0.0114	(10.0321)	(0.0011)	0.0045	(0.0026)	(0.0059)	0.0256	(0.0135)
2001	0.0699	0.0133	13.9780	0.0010	0.0136	(0.0009)	0.0060	0.0587	(0.0057)
2002	0.0730	0.0130	8.7945	0.0015	0.0070	0.0005	0.0098	0.0391	0.0034
2003	0.0735	0.0121	9.2180	0.0013	0.0083	(0.0000)	0.0093	0.0528	(0.0001)
2004	0.1261	0.0175	2.5562	0.0068	0.0192	0.0049	0.0562	0.1228	0.0422
2005	0.1461	0.0185	2.5158	0.0074	0.0324	0.0041	0.0655	0.1995	0.0386
2006	0.2177	0.0215	1.9452	0.0110	0.0355	0.0075	0.1230	0.3057	0.0874
2007	0.1995	0.0209	1.9759	0.0106	0.0518	0.0060	0.1115	0.3463	0.0683
2008	0.1292	0.0134	3.5108	0.0038	0.0283	0.0011	0.0406	0.2047	0.0119
2009	0.0628	0.0146	4.4146	0.0033	(0.0019)	0.0069	0.0175	(0.0243)	0.0261
2010	0.0773	0.0120	4.6480	0.0026	0.0065	0.0017	0.0192	0.0545	0.0120
2011	0.0611	0.0095	46.3927	0.0002	0.0107	(0.0018)	0.0015	0.0761	(0.0136)
2012	0.0507	0.0073	(5.1263)	(0.0014)	0.0120	(0.0036)	(0.0113)	0.0800	(0.0294)
Speed years	$1/\lambda^*$	$1/\lambda_G^*$	$1/\lambda_{\text{PRI}}^*$	i_{actual}	$i_{\text{endoge.}}$	difference	Δd	$\text{SPRI} - \text{IPRI}$	bop
4. Chile	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL
1990	21.21	21.00	23.76	0.1438	0.2323	(0.0885)	0.0089	(0.0370)	(0.0281)
1991	22.23	24.47	22.51	0.1119	0.2023	(0.0903)	0.0171	(0.0302)	(0.0131)
1992	19.90	25.83	19.56	0.1397	0.2296	(0.0899)	0.0245	(0.0591)	(0.0346)
1993	17.82	25.43	16.65	0.1606	0.2783	(0.1176)	0.0206	(0.0857)	(0.0651)
1994	21.15	23.67	20.86	0.1416	0.2893	(0.1477)	0.0170	(0.0540)	(0.0370)
1995	20.54	29.31	19.13	0.1533	0.2258	(0.0725)	0.0262	(0.0452)	(0.0190)
1996	18.51	33.18	16.46	0.1465	0.2299	(0.0834)	0.0234	(0.0789)	(0.0555)
1997	18.28	31.16	16.42	0.1597	0.2323	(0.0726)	0.0199	(0.0788)	(0.0589)
1998	19.09	22.21	18.65	0.1491	0.2142	(0.0652)	0.0040	(0.0667)	(0.0627)
1999	26.82	17.14	32.00	0.0818	0.1550	(0.0733)	(0.0150)	0.0064	(0.0086)
2000	24.11	25.47	23.94	0.0864	0.1742	(0.0879)	0.0015	(0.0234)	(0.0218)
2001	22.15	36.60	20.15	0.0920	0.2049	(0.1129)	0.0158	(0.0365)	(0.0207)
2002	22.58	29.09	21.46	0.0850	0.2085	(0.1236)	0.0074	(0.0248)	(0.0174)
2003	22.41	29.50	21.19	0.0798	0.2126	(0.1328)	0.0123	(0.0323)	(0.0200)
2004	25.38	39.69	23.20	0.0774	0.2327	(0.1553)	0.0367	(0.0267)	0.0100
2005	24.90	53.24	21.44	0.1053	0.2621	(0.1568)	0.0617	(0.0636)	(0.0019)
2006	31.95	71.31	27.50	0.0881	0.2890	(0.2008)	0.0909	(0.0640)	0.0269
2007	31.51	94.87	25.87	0.0970	0.2823	(0.1853)	0.1057	(0.0791)	0.0266
2008	22.52	54.02	19.33	0.1033	0.2995	(0.1962)	0.0630	(0.1047)	(0.0416)
2009	28.23	13.76	38.55	0.1018	0.1862	(0.0844)	(0.0284)	0.0407	0.0122
2010	24.95	26.82	24.62	0.0884	0.2123	(0.1239)	0.0124	(0.0171)	(0.0047)
2011	23.14	33.57	21.42	0.0808	0.2124	(0.1316)	0.0229	(0.0490)	(0.0262)
2012	21.65	37.66	19.39	0.0752	0.2188	(0.1436)	0.0255	(0.0740)	(0.0484)
Employment	n	$n_{\text{EQUI(G)-n}}$	$n_{\text{EQUI(PRI)-n}}$	$n_{\text{EQUI-n}}$	$n_{\text{EQUI(G)-n}_G}$	$n_{\text{EQUI(PRI)-n}_P}$	Unem.rate(act)	$g_{\text{CPI}}(\text{actual})$	Infla. rate
4. Chile	under attaining equilibrium			under the same wage rate	by sector		actual; to population		
1990	0.0108	0.0000	0.0000	0.0000	0.0000	0.0000	(0.0252)	0.2602	0.4761
1991	0.0168	0.0000	0.0000	0.0000	0.0463	(0.0073)	(0.0239)	0.2180	0.2662
1992	0.0165	0.0000	0.0000	0.0000	0.0179	(0.0027)	(0.0198)	0.1538	0.2209
1993	0.0170	0.0000	0.0000	0.0000	(0.0500)	0.0073	(0.0203)	0.1279	0.2242
1994	0.0160	0.0000	0.0000	0.0000	(0.0969)	0.0150	(0.0356)	0.1146	0.1791
1995	0.0286	0.0000	0.0000	0.0000	0.0057	(0.0010)	(0.0212)	0.0823	0.0635
1996	0.0160	0.0000	0.0000	0.0000	0.0206	(0.0035)	(0.0243)	0.0733	0.0781
1997	0.0144	0.0000	0.0000	0.0000	(0.0119)	0.0020	(0.0239)	0.0623	0.0822
1998	0.0135	0.0000	0.0000	0.0000	0.0009	(0.0001)	(0.0324)	0.0507	0.0771
1999	0.0126	0.0000	0.0000	0.0000	(0.0737)	0.0124	(0.0401)	0.0333	0.0616
2000	0.0125	0.0000	0.0000	0.0000	(0.0120)	0.0022	(0.0374)	0.0384	0.0662
2001	0.0123	0.0000	0.0000	0.0000	(0.0258)	0.0048	(0.0356)	0.0360	0.0417
2002	0.0115	0.0000	0.0000	0.0000	(0.0325)	0.0062	(0.0351)	0.0241	0.0253
2003	0.0108	0.0000	0.0000	0.0000	0.0478	(0.0095)	(0.0333)	0.0283	0.0216
2004	0.0107	0.0000	0.0000	0.0000	(0.0965)	0.0181	(0.0396)	0.0110	0.0120
2005	0.0112	0.0000	0.0000	0.0000	(0.0334)	0.0070	(0.0360)	0.0309	0.0259
2006	0.0104	0.0000	0.0000	0.0000	(0.2053)	0.0447	(0.0347)	0.0340	0.0362
2007	0.0103	0.0000	0.0000	0.0000	(0.0032)	0.0009	(0.0320)	0.0435	0.0376
2008	0.0096	0.0000	0.0000	0.0000	0.1282	(0.0353)	(0.0351)	0.0880	0.0363
2009	0.0113	0.0000	0.0000	0.0000	0.0775	(0.0180)	(0.0441)	0.0196	0.0184
2010	0.0094	0.0000	0.0000	0.0000	0.0059	(0.0012)	(0.0374)	0.0140	0.0060
2011	0.0093	0.0000	0.0000	0.0000	0.0755	(0.0158)	(0.0324)	0.0335	0.0069
2012	0.0087	0.0000	0.0000	0.0000	0.0205	(0.0039)	(0.0288)	0.0296	0.0111

Data source: KEWT 8.14-4 for 19 Rest Area by sector, 1990-2012, whose original data are from *International Financial Statistics Yearbook*, IMF.

Chapter 11

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

Robustnes	HA _β [*] (i)	HA _β [*] (i)G	HA _β [*] (i)PRI	HA _Ω [*] (i)	HA _Ω [*] G*(G)	HA _Ω [*] PRI*(G)PRI	Widt _Ω (i)	Width _Ω G(G)	Width _Ω P(G)P
4. Chile		G	PRI		G	PRI		G	PRI
1990	0.7207	0.7758	0.7094	2.3300	1.9773	2.4799	0.2802	0.2317	0.2988
1991	0.6833	0.7597	0.6676	2.1963	2.2228	2.2078	0.3332	0.3248	0.3372
1992	0.6637	0.7571	0.6437	1.8926	1.8878	1.9078	0.2903	0.2751	0.2956
1993	0.6722	0.7520	0.6551	1.8151	2.0467	1.7658	0.2820	0.3024	0.2776
1994	0.7000	0.7597	0.6867	1.7752	1.9906	1.7296	0.2634	0.2849	0.2588
1995	0.6662	0.7236	0.6539	2.0927	2.4521	2.0279	0.4138	0.4657	0.4047
1996	0.6587	0.7114	0.6480	1.9348	2.1386	1.9013	0.2930	0.3107	0.2904
1997	0.6673	0.7096	0.6589	1.9874	2.0761	1.9735	0.2843	0.2875	0.2841
1998	0.6761	0.7214	0.6669	2.1707	2.1553	2.1765	0.2985	0.2891	0.3008
1999	0.6890	0.7329	0.6794	2.4804	2.4206	2.5823	0.3245	0.3128	0.3372
2000	0.6915	0.7337	0.6822	2.4176	2.6061	2.3783	0.3151	0.3320	0.3116
2001	0.7030	0.7316	0.6969	2.3296	2.6924	2.2743	0.3011	0.3385	0.2956
2002	0.7149	0.7327	0.7111	2.4073	2.5781	2.3754	0.2992	0.3157	0.2961
2003	0.7199	0.7440	0.7148	2.4315	2.5285	2.4126	0.2915	0.2981	#NUM!
2004	0.7457	0.7463	0.7456	2.3327	2.2176	2.3656	0.2745	0.2597	0.2786
2005	0.7595	0.7459	0.7623	2.3241	1.9485	2.4349	0.2780	0.2334	0.2910
2006	0.7981	0.7477	0.8086	2.2205	1.5361	2.4398	0.2515	0.1787	0.2748
2007	0.8002	0.7402	0.8121	2.3371	1.5269	2.6194	0.2629	0.1768	0.2928
2008	0.7798	0.7347	0.7882	2.5812	1.8155	2.8058	0.2836	0.2039	0.3070
2009	0.7546	0.7477	0.7560	3.0346	2.3576	3.4370	0.3628	0.2870	0.4066
2010	0.7502	0.7470	0.7509	2.7153	2.3870	2.7942	0.2991	0.2639	0.3075
2011	0.7408	0.7513	0.7387	2.7286	2.4450	2.7954	0.3008	0.2676	0.3086
2012	0.7391	0.7500	0.7369	2.7613	2.4836	2.8304	0.2941	0.2619	0.3020
Key ratios	α	δ₀	β[*]	Ω	g_A[*]=i(1-β[*])	x=i/g_y[*]	r[*]=α/Ω	r[*]_G=α_G/Ω_G	r[*]_{PRI}=α_{PRI}/Ω_{PRI}
4. Chile						x=a/(i·b[*])	G	PRI	
1990	0.2027	0.3441	0.7471	2.0349	0.0588	1.1677	0.0996	0.2469	0.0668
1991	0.1721	0.4319	0.7295	1.7571	0.0547	1.1662	0.0979	0.2023	0.0734
1992	0.1836	0.4625	0.7021	1.5852	0.0684	1.1390	0.1158	0.2693	0.0772
1993	0.2225	0.4796	0.7036	1.5682	0.0825	1.1361	0.1419	0.2290	0.1204
1994	0.3191	0.5408	0.7259	1.5640	0.0793	1.5191	0.2040	0.2425	0.1945
1995	0.2083	0.5709	0.7311	1.5360	0.0607	1.2620	0.1356	0.2033	0.1197
1996	0.1462	0.4201	0.6972	1.6219	0.0696	0.9122	0.0901	0.1797	0.0702
1997	0.1446	0.3870	0.7021	1.6913	0.0692	0.8866	0.0855	0.1730	0.0668
1998	0.1154	0.3417	0.7132	1.8217	0.0614	0.7552	0.0633	0.1452	0.0455
1999	0.1102	0.3579	0.7384	1.9471	0.0406	0.9629	0.0566	0.0999	0.0464
2000	0.1164	0.3414	0.7348	1.9564	0.0462	0.9094	0.0595	0.0972	0.0505
2001	0.1629	0.3514	0.7380	1.9577	0.0537	1.0771	0.0832	0.1119	0.0767
2002	0.1758	0.3405	0.7471	2.0430	0.0527	1.1283	0.0860	0.1035	0.0822
2003	0.1787	0.3283	0.7495	2.0882	0.0532	1.1217	0.0856	0.1214	0.0778
2004	0.2941	0.4054	0.7696	2.0483	0.0536	1.6426	0.1436	0.1909	0.1337
2005	0.3396	0.4297	0.7806	2.0625	0.0575	1.6597	0.1647	0.2683	0.1440
2006	0.4834	0.5208	0.8128	2.0212	0.0541	2.0580	0.2392	0.3956	0.2091
2007	0.4662	0.4961	0.8156	2.1155	0.0521	2.0247	0.2204	0.4153	0.1850
2008	0.3335	0.3771	0.7963	2.3379	0.0610	1.3983	0.1426	0.2744	0.1199
2009	0.1904	0.3241	0.7913	2.4612	0.0389	1.2929	0.0774	0.1193	0.0689
2010	0.2100	0.3130	0.7763	2.3506	0.0475	1.2741	0.0893	0.1337	0.0803
2011	0.1666	0.2816	0.7677	2.3601	0.0493	1.0220	0.0706	0.1421	0.0561
2012	0.1399	0.2494	0.7640	2.4155	0.0516	0.8368	0.0579	0.1377	0.0420
Neutral tests	m_K=M/K	m_Y=M/Y	m_{PI}=M/PI	r_(DEBT)-r[*]	r_(DEBT)/r[*]	(e_(US))/g_y^{**}	r[*]-r[*](US)	e[*](US)	e_(US)/e[*](US)
4. Chile						g_y^{**}=g_y[*]/g_y[*](US)	e[*](US)=e_(US)+(r[*]-r[*](US))		
1990	0.2184	0.4443	2.1922	0.389	4.906	27.44	0.0013	336.9	1.0000
1991	0.2475	0.4348	2.5269	0.188	2.918	26.23	0.0088	374.9	1.0000
1992	0.2610	0.4137	2.2528	0.124	2.069	18.04	0.0193	382.3	0.9999
1993	0.2648	0.4153	1.8669	0.102	1.716	41.86	0.0551	431.1	0.9999
1994	0.2403	0.3759	1.1781	(0.001)	0.997	52.26	0.1203	404.2	0.9997
1995	0.2666	0.4094	1.9653	(0.036)	0.734	62.09	0.0523	407.2	0.9999
1996	0.2748	0.4456	3.0481	0.003	1.028	75.51	0.0112	425.0	1.0000
1997	0.2948	0.4986	3.4482	0.009	1.110	102.89	0.0134	439.8	1.0000
1998	0.2945	0.5365	4.6497	0.024	1.378	160.48	(0.0049)	473.8	1.0000
1999	0.3064	0.5966	5.4129	0.017	1.304	361.26	(0.0094)	530.1	1.0000
2000	0.3045	0.5958	5.1173	0.018	1.304	376.49	(0.0060)	572.7	1.0000
2001	0.2662	0.5211	3.1995	(0.028)	0.661	252.87	0.0074	656.2	1.0000
2002	0.2534	0.5178	2.9457	(0.048)	0.445	195.02	(0.0089)	712.4	1.0000
2003	0.2268	0.4737	2.6504	(0.052)	0.394	153.01	(0.0173)	599.4	1.0000
2004	0.2403	0.4923	1.6738	(0.114)	0.205	143.37	0.0399	559.9	0.9999
2005	0.2545	0.5250	1.5458	(0.120)	0.270	114.51	0.0524	514.3	0.9999
2006	0.2576	0.5206	1.0769	(0.181)	0.241	141.90	0.1451	534.6	0.9997
2007	0.2712	0.5737	1.2305	(0.162)	0.265	163.56	0.1447	496.0	0.9997
2008	0.2710	0.6335	1.8996	(0.093)	0.348	169.20	0.0586	629.2	0.9999
2009	0.2460	0.6055	3.1797	(0.044)	0.426	(32.35)	(1.0067)	467.4	1.0022
2010	0.2348	0.5519	2.6280	(0.071)	0.201	47.45	(0.9947)	520.5	1.0019
2011	0.2652	0.6260	3.7567	(0.054)	0.232	6430	(1.0134)	377.6	1.0027
2012	0.2606	0.6296	4.5013	(0.040)	0.318	16924	(1.0261)	505.4	1.0020

Data source: KEWT 8.14-4 for 19 Rest Area by sector, 1990-2012, whose original data are from *International Financial Statistics Yearbook*, IMF.

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

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

Cost of capit:	$\text{HA}_r^*(i)$	$r^* - \text{HA}_r^*(i)$	$v^* = r^*/(r^* - gY^*)$	$\text{CC}^*_{\text{REAL}}$	$\text{CC}^*_{\text{REAL}(G)}$	$\text{CC}^*_{\text{REAL}(\text{PRI})}$	$\text{CC}^*_{\text{NOMINAL}}$	$\text{CC}^*_{\text{NOM}(G)}$	$\text{CC}^*_{\text{NOM}(P)}$
5. Colombi	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990	0.1165	0.0281	2.2738	0.0124	0.0012	0.0187	0.0636	0.0091	0.0830
1991	0.1114	0.0415	1.5292	0.0271	0.0059	0.0499	0.1000	0.0509	0.1095
1992	0.1121	0.0295	1.7584	0.0168	(0.0065)	0.0612	0.0805	(0.0755)	0.1553
1993	0.1289	0.0223	2.2975	0.0097	0.0020	0.0143	0.0658	0.0180	0.0877
1994	0.1433	0.0120	7.7065	0.0016	(0.0040)	0.0035	0.0202	(0.0308)	0.0499
1995	0.1564	0.0134	4.4449	0.0030	(0.0055)	0.0055	0.0382	(0.0555)	0.0743
1996	0.1313	0.0183	3.4388	0.0053	(0.0495)	0.0126	0.0435	(0.2027)	0.1179
1997	0.1434	0.0235	2.4361	0.0097	(0.1775)	0.0169	0.0685	(0.2763)	0.1466
1998	0.1545	0.0268	1.8937	0.0141	(0.0374)	0.0268	0.0957	(0.2530)	0.1820
1999	0.1157	0.0745	1.2759	0.0584	(0.0672)	0.1835	0.1490	(0.3519)	0.2971
2000	0.1068	0.0492	1.5224	0.0323	(0.0738)	0.0713	0.1025	(0.2692)	0.2148
2001	0.1242	0.0588	1.5105	0.0389	(0.1648)	0.0574	0.1211	(0.2177)	0.2117
2002	0.1301	0.0415	1.6453	0.0252	(0.0302)	0.0598	0.1043	(0.1990)	0.1995
2003	0.1011	0.0240	2.9211	0.0082	(0.0238)	0.0151	0.0428	(0.0962)	0.0838
2004	0.1017	0.0547	1.4048	0.0389	(0.0074)	(0.0560)	0.1113	(0.1364)	0.2184
2005	0.0921	0.0595	1.3453	0.0443	0.5057	(0.0463)	0.1127	0.5389	(0.1443)
2006	0.1034	0.0341	1.8138	0.0188	(0.0067)	(0.1120)	0.0758	(0.1019)	0.1657
2007	0.1041	0.0287	2.0998	0.0137	0.0007	0.0335	0.0633	0.0058	0.0964
2008	0.1023	0.0270	2.1812	0.0124	0.0109	0.0130	0.0593	0.0557	0.0606
2009	0.0930	0.0236	2.5628	0.0092	(0.0019)	0.0243	0.0455	(0.0137)	0.0909
2010	0.0862	0.0253	2.2377	0.0113	0.0020	0.0208	0.0498	0.0095	0.0874
2011	0.1033	0.0234	2.4395	0.0096	0.0015	0.0178	0.0519	0.0096	0.0857
2012	0.0917	0.0208	2.7364	0.0076	(0.0010)	0.0168	0.0411	(0.0067)	0.0790
Speed years	$1/\lambda^*$	$1/\lambda_G^*$	$1/\lambda_{\text{PRI}}^*$	i_{actual}	$i_{\text{endoge.}}$	difference	Δd	$\text{SPRI} - i_{\text{PRI}}$	bop
5. Colombi	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL
1990	35.58	17.35	0.56	0.1340	0.1256	0.0084	(0.0090)	0.0421	0.0331
1991	16.87	20.23	18.30	0.1176	0.0727	0.0449	0.0011	0.0750	0.0761
1992	4.00	10.82	10.27	0.1253	0.0834	0.0419	(0.0370)	0.0553	0.0182
1993	6.22	19.16	9.89	0.1514	0.1181	0.0333	(0.0083)	(0.0114)	(0.0197)
1994	5.40	39.81	5.53	0.1876	0.1924	(0.0048)	(0.0169)	(0.0686)	(0.0855)
1995	4.22	49.82	4.88	0.1804	0.1945	(0.0141)	(0.0255)	(0.0649)	(0.0904)
1996	2.54	199.93	2.64	0.1740	0.1585	0.0155	(0.0417)	(0.0445)	(0.0862)
1997	0.00	78.95	1.89	0.1628	0.1461	0.0167	(0.0411)	(0.0493)	(0.0904)
1998	4.08	8.71	10.99	0.1525	0.1279	0.0246	(0.0549)	(0.0304)	(0.0853)
1999	32471.04	8.65	100.82	0.1067	0.0526	0.0541	(0.0773)	0.0628	(0.0145)
2000	31.96	1.92	50.71	0.1417	0.0713	0.0704	(0.0563)	0.0493	(0.0069)
2001	64.99	46.16	40.82	0.1522	0.0827	0.0695	(0.0371)	(0.0032)	(0.0403)
2002	37.50	19.02	90.03	0.1582	0.0976	0.0607	(0.0577)	0.0038	(0.0539)
2003	23.92	111.98	16.11	0.1754	0.1281	0.0473	(0.0283)	(0.0251)	(0.0534)
2004	35.34	10.33	23.15	0.1616	0.0574	0.1042	(0.0919)	0.1040	0.0121
2005	45.06	117.80	7.48	0.1741	0.0472	0.1270	0.1384	(0.1060)	0.0324
2006	0.15	8.90	113.19	0.1956	0.0830	0.1126	(0.0726)	0.0938	0.0212
2007	0.44	17.00	13.03	0.1960	0.0972	0.0988	(0.0160)	0.0290	0.0130
2008	1.94	28.27	10.27	0.1998	0.1005	0.0993	0.0104	0.0098	0.0201
2009	11.22	16.98	10.14	0.1923	0.1074	0.0849	(0.0217)	0.0301	0.0084
2010	33.93	25.34	9.00	1.1921	0.0940	1.0981	(0.0060)	0.0264	0.0205
2011	23.92	20.27	8.22	1.1832	0.1170	1.0662	(0.0095)	0.0357	0.0262
2012	102.70	19.07	7.01	1.5141	0.1164	1.3977	(0.0167)	0.0370	0.0203
Employment	n	$n_{\text{EQUI}(G)-n}$	$n_{\text{EQUI}(\text{PRI})-n}$	$n_{\text{EQUI}-n}$	$n_{\text{EQUI}(G)-n_G}$	$n_{\text{EQUI}(\text{PRI})-n_P}$	Unem.rate(act)	$g_{\text{CPI}}(\text{actual})$	Infla. rate
5. Colombi	under attaining equilibrium			under the same wage rate by sector			actual; to population		
1990	0.0157	0.0000	0.0000	0.0000	0.0000	0.0000	(0.0459)	0.2902	0.4239
1991	0.0143	0.0000	0.0000	0.0000	0.0113	(0.0017)	(0.0441)	0.3040	0.4295
1992	0.0127	0.0000	0.0000	0.0000	(0.1272)	0.0188	(0.0414)	0.2681	0.3435
1993	0.0126	0.0000	0.0000	0.0000	0.0159	(0.0027)	(0.0351)	0.2279	0.3357
1994	0.0105	0.0000	0.0000	0.0000	(0.2446)	0.0407	(0.0342)	0.2380	0.3930
1995	0.0104	0.0000	0.0000	0.0000	(0.0584)	0.0126	(0.0392)	0.2092	0.4138
1996	0.0130	0.0000	0.0000	0.0000	(0.1983)	0.0457	(0.0536)	0.2029	0.4016
1997	0.0139	0.0000	0.0000	0.0000	(0.1292)	0.0373	(0.0545)	0.1857	0.3187
1998	0.0126	0.0000	0.0000	0.0000	(0.0387)	0.0131	(0.0675)	0.1868	0.3956
1999	0.0161	0.0000	0.0000	0.0000	(0.1007)	0.0358	(0.0905)	0.1090	0.1832
2000	0.0169	0.0000	0.0000	0.0000	0.0788	(0.0319)	(0.0923)	0.0917	0.1387
2001	0.0199	0.0000	0.0000	0.0000	(0.0120)	0.0043	(0.0662)	0.0800	0.1484
2002	0.0163	0.0000	0.0000	0.0000	0.0623	(0.0229)	(0.2565)	0.0630	0.1218
2003	0.0158	0.0000	0.0000	0.0000	0.0881	(0.0298)	(0.0639)	0.0714	0.1279
2004	0.0158	0.0000	0.0000	0.0000	0.0465	(0.0139)	(0.0612)	0.0593	0.0961
2005	0.0153	0.0000	0.0000	0.0000	0.0892	(0.0252)	(0.0531)	0.0504	0.0861
2006	0.0153	0.0000	0.0000	0.0000	0.0416	(0.0105)	(0.0545)	0.0430	0.0948
2007	0.0151	0.0000	0.0000	0.0000	0.0075	(0.0018)	(0.0500)	0.0556	0.1251
2008	0.0146	0.0000	0.0000	0.0000	0.0069	(0.0016)	(0.0509)	0.0699	0.1448
2009	0.0144	0.0000	0.0000	0.0000	(0.0661)	0.0155	(0.0540)	0.0416	0.1065
2010	0.0140	0.0000	0.0000	0.0000	(0.0257)	0.0065	(0.0531)	0.0228	0.0685
2011	0.0138	0.0000	0.0000	0.0000	0.0370	(0.0097)	(0.0486)	0.0343	0.0888
2012	0.0132	0.0000	0.0000	0.0000	(0.0242)	0.0060	(0.0468)	0.0316	0.1051

Data source: KEWT 8.14-4 for 19 Rest Area by sector, 1990-2012, whose original data are from *International Financial Statistics Yearbook*, IMF.

Chapter 11

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

Robustnes	HA β^* (i)	HA β^* (i)G	HA β^* (i)PRI	HA Ω^* (i)	HA Ω^* G*(G)	HA Ω^* PRI*(G)PRI	Widt Ω^* (i)	Width Ω^* G(G)	Width Ω^* P(G)P
5. Colombia		G	PRI		G	PRI		G	PRI
1990	0.4981	0.7145	0.4339	1.0627	2.1607	0.8735	0.1795	0.3145	0.1554
1991	0.4569	0.6997	0.3832	1.0100	1.8562	1.0351	0.1653	0.2611	0.1698
1992	0.4231	0.6670	0.3413	0.8297	1.8981	0.7703	0.1350	0.2584	0.1280
1993	0.4090	0.6504	0.3323	0.7264	1.6739	0.5432	0.1217	0.2281	0.0997
1994	0.3985	0.5315	0.3594	0.6451	1.2181	0.5368	0.1022	0.1659	0.0896
1995	0.4332	0.5210	0.4082	0.7278	1.1334	0.6440	0.1101	0.1561	0.1004
1996	0.4500	0.4578	0.4477	0.8210	1.2605	0.7515	0.1346	0.1976	0.1241
1997	0.4621	0.3953	0.4815	0.8642	2.1558	0.8314	0.1439	0.3158	0.1368
1998	0.4758	0.4069	0.4966	0.9046	0.8971	0.9064	0.1416	0.1509	0.1391
1999	0.4772	0.4163	0.4984	1.2613	1.0681	1.9427	0.2066	0.1980	0.2902
2000	0.4582	0.4243	0.4696	1.0753	1.1753	1.0583	0.1879	0.2151	0.1821
2001	0.4759	0.4195	0.4940	1.1280	3.3734	1.0319	0.2102	#NUM!	0.1922
2002	0.4877	0.4729	0.4926	1.0646	1.1322	1.0981	0.1820	0.2015	0.1838
2003	0.4903	0.4874	0.4912	1.0476	1.2828	0.9961	0.1785	0.2156	0.1701
2004	0.4457	0.5952	0.3812	1.0834	1.2490	0.4407	0.1829	0.2010	0.0965
2005	0.4329	0.5915	0.3716	1.1114	12.9127	0.9085	0.1841	1.6300	0.1646
2006	0.4299	0.6658	0.3144	0.8959	1.6676	0.2532	0.1565	0.2499	0.0675
2007	0.4375	0.6822	0.3123	0.8872	1.9046	0.6454	0.1543	0.2773	0.1236
2008	0.4491	0.6851	0.3318	0.9197	2.0844	0.5870	0.1560	0.2948	0.1139
2009	0.4715	0.6929	0.3533	1.0002	2.1541	0.6821	0.1652	0.3038	0.1252
2010	0.4820	0.6914	0.3703	1.0768	2.3845	0.7020	0.1722	0.3279	0.1257
2011	0.4903	0.7026	0.3797	1.0384	2.2277	0.6977	0.1657	0.3049	0.1241
2012	0.5063	0.7091	0.3984	1.1143	2.3570	0.7600	0.1713	0.3142	0.1290
Key ratios	α	δ_0	β^*	Ω	$g_{\lambda}^*=(1-\beta^*)$	$x=\frac{r^*}{g_{\lambda}^*}$	$r^*=\alpha/\Omega$	$r^*_{G}=\alpha_G/\Omega_G$	$r^*_{PRI}=\alpha_{PRI}/\Omega_{PRI}$
5. Colombia						$x=a/(i \cdot b^*)$	G	G	PRI
1990	0.1238	1.7444	0.5520	0.8562	0.0563	1.7850	0.1446	0.1278	0.1528
1991	0.1125	3.1349	0.5358	0.7361	0.0337	2.8896	0.1529	0.1742	0.1410
1992	0.0930	(4.5017)	0.4809	0.6568	0.0433	2.3186	0.1416	0.0713	0.1876
1993	0.0937	(1.2936)	0.4480	0.6195	0.0652	1.7707	0.1512	0.1293	0.1648
1994	0.0924	(0.5685)	0.4180	0.5951	0.1120	1.1491	0.1553	0.0509	0.2008
1995	0.1138	(1.1435)	0.4535	0.6705	0.1063	1.2903	0.1698	0.0498	0.2134
1996	0.1078	(3.6586)	0.4824	0.7206	0.0820	1.4100	0.1496	(0.1497)	0.2396
1997	0.1239	#####	0.5000	0.7424	0.0730	1.6963	0.1669	(0.2547)	0.2672
1998	0.1398	5.1351	0.5157	0.7711	0.0620	2.1189	0.1813	(0.1677)	0.2676
1999	0.1459	1.6527	0.6001	0.7673	0.0210	4.6239	0.1902	(0.2675)	0.3232
2000	0.1148	2.4492	0.5526	0.7362	0.0319	2.9142	0.1560	(0.2076)	0.2656
2001	0.1401	1.9176	0.5723	0.7656	0.0354	2.9590	0.1830	(0.1914)	0.2850
2002	0.1385	1.9407	0.5567	0.8071	0.0432	2.5496	0.1716	(0.0917)	0.2538
2003	0.1059	1.9557	0.5434	0.8467	0.0585	1.5205	0.1250	(0.0325)	0.1716
2004	0.1101	2.6494	0.5529	0.7044	0.0257	3.4702	0.1564	0.1555	0.1569
2005	0.1024	2.7184	0.5569	0.6750	0.0209	3.8963	0.1517	0.5552	(0.0967)
2006	0.0926	161.5376	0.5006	0.6739	0.0415	2.2288	0.1374	0.1320	0.1431
2007	0.0924	(45.8065)	0.4981	0.6953	0.0488	1.9093	0.1329	0.1268	0.1397
2008	0.0941	11.7093	0.5074	0.7279	0.0495	1.8466	0.1293	0.1303	0.1283
2009	0.0930	3.0163	0.5280	0.7977	0.0507	1.6399	0.1166	0.0897	0.1447
2010	0.0928	1.9885	0.5462	0.8327	0.0426	1.8079	0.1114	0.0768	0.1460
2011	0.1073	2.0079	0.5411	0.8469	0.0537	1.6947	0.1267	0.1002	0.1521
2012	0.1022	1.4182	0.5570	0.9086	0.0516	1.5759	0.1124	0.0823	0.1410
Neutrality tests	$m_K=M/K$	$m_Y=M/Y$	$m_{\Pi}=M/\Pi$	$r_{(DEBT)}-r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)})/g_{\lambda}^{**}$	$r^*-r^*(US)$	$e^*(US)$	$e^*(US)/e^*(US)$
5. Colombia						$g_{\lambda}^{**}=g_{\lambda}^*/g_{\lambda}^*(US)$	$e^*(US)=e(US)+(r^*-r^*(US))$		
1990	0.0250	0.0214	0.1732	0.307	3.126	53.15	0.0462	568.78	0.9999
1991	0.2730	0.2010	1.7862	0.318	3.081	85.98	0.0637	706.92	0.9999
1992	0.3469	0.2279	2.4504	0.231	2.634	67.23	0.0450	811.82	0.9999
1993	0.3866	0.2395	2.5565	0.207	2.368	131.39	0.0644	917.39	0.9999
1994	0.3655	0.2175	2.3534	0.250	2.608	101.48	0.0716	831.34	0.9999
1995	0.5684	0.3811	3.3482	0.257	2.516	96.30	0.0864	987.74	0.9999
1996	0.5330	0.3841	3.5632	0.270	2.807	158.43	0.0706	1005.4	0.9999
1997	0.5386	0.3998	3.2267	0.175	2.050	293.63	0.0948	1293.7	0.9999
1998	0.4981	0.3841	2.7471	0.241	2.330	492.33	0.1130	1507.6	0.9999
1999	0.5128	0.3935	2.6964	0.068	1.355	2364	0.1242	1873.9	0.9999
2000	0.4848	0.3569	3.1078	0.032	1.205	2087	0.0904	2187.1	1.0000
2001	0.4797	0.3672	2.6219	0.024	1.133	1382	0.1072	2301.4	1.0000
2002	0.4508	0.3638	2.6276	(0.008)	0.952	999.48	0.0766	2864.9	1.0000
2003	0.4265	0.3612	3.4113	0.027	1.215	703.32	0.0221	2780.8	1.0000
2004	0.4666	0.3286	2.9840	(0.006)	0.964	1627	0.0527	2412.2	1.0000
2005	0.5107	0.3447	3.3679	(0.006)	0.960	1902	0.0394	2284.3	1.0000
2006	0.5258	0.3543	3.8259	(0.009)	0.938	1354	0.0434	2225.5	1.0000
2007	0.5323	0.3701	4.0057	0.021	1.157	1190	0.0572	1987.9	1.0000
2008	0.5358	0.3900	4.1436	0.042	1.329	990.35	0.0453	2198.1	1.0000
2009	0.4906	0.3914	4.2087	0.014	1.116	(121.27)	(0.9675)	2043.2	1.0005
2010	0.4796	0.3993	4.3044	(0.018)	0.842	231.68	(3.9726)	1985.9	1.0020
2011	0.4914	0.4162	3.8789	(0.014)	0.886	32480	(3.9574)	1938.7	1.0020
2012	0.4983	0.4527	4.4313	0.013	1.120	59772	(3.9716)	1707.5	1.0023

Data source: KEWT 8.14-4 for 19 Rest Area by sector, 1990-2012, whose original data are from *International Financial Statistics Yearbook*, IMF.

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

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

Cost of capit:	$HA_{r^*}(t)$	$r^* - HA_{r^*}(t)$	$v^* = r^*/(r^* - gY^*)$	CC^*_{REAL}	$CC^*_{REAL(G)}$	$CC^*_{REAL(PRI)}$	$CC^*_{NOMINAL}$	$CC^*_{NOMIG(G)}$	$CC^*_{NOMIG(P)}$
6. Paraguay	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990	0.0896	0.0589	2.1721	0.0271	12.0483	0.0117	0.0684	0.2699	0.0202
1991	0.1168	0.0423	2.6021	0.0163	(0.1352)	0.0197	0.0612	0.0850	0.0449
1992	0.1083	0.0457	2.5374	0.0180	0.0083	0.0208	0.0607	0.0412	0.0575
1993	0.1149	0.0459	2.4242	0.0189	0.0095	0.0178	0.0663	0.0559	0.0463
1994	0.1271	0.0512	2.2510	0.0227	0.0075	0.0300	0.0792	0.0444	0.0758
1995	0.1220	0.0473	2.4085	0.0196	0.0062	0.0245	0.0703	0.0391	0.0597
1996	0.1240	0.0368	2.2839	0.0211	0.0034	0.0267	0.0704	0.0261	0.0779
1997	0.1112	0.0350	2.3775	0.0147	0.0025	0.0271	0.0615	0.0170	0.0783
1998	0.0944	0.0350	2.3157	0.0151	0.0017	0.0275	0.0559	0.0054	0.1097
1999	0.0833	0.0401	2.1509	0.0186	(0.0121)	0.0521	0.0574	(0.0426)	0.1483
2000	0.0734	0.0537	1.6414	0.0327	(0.0188)	0.1160	0.0774	(0.0645)	0.2067
2001	0.0767	0.0476	1.7595	0.0271	(0.0034)	0.0562	0.0707	(0.0090)	0.1459
2002	0.0704	0.0559	1.5629	0.0358	(0.0121)	0.1591	0.0808	(0.0502)	0.1958
2003	0.0939	0.0491	1.6723	0.0294	0.0001	0.0728	0.0855	0.0003	0.1598
2004	0.1063	0.0444	1.7733	0.0250	0.0115	0.0379	0.0850	0.0532	0.1051
2005	0.1054	0.0406	1.8810	0.0216	0.0070	0.0369	0.0776	0.0324	0.1140
2006	0.1031	0.0435	1.8784	0.0232	0.0075	0.0393	0.0780	0.0306	0.1180
2007	0.1078	0.0477	1.6208	0.0294	0.0089	0.0550	0.0959	0.0455	0.1297
2008	0.1154	0.0522	1.5245	0.0342	0.0177	0.0490	0.1099	0.0782	0.1302
2009	0.0888	0.0948	1.2285	0.0772	0.0033	0.1259	0.1495	0.0033	0.2973
2010	0.0805	0.0412	1.7263	0.0239	0.0111	0.0296	0.0705	0.0602	0.0562
2011	0.0991	0.0481	1.5473	0.0311	0.0125	0.0489	0.0952	0.0425	0.1428
2012	0.2882	0.0366	1.9974	0.0183	0.0123	0.0228	0.1626	0.0416	0.2596
Speed years	$1/\lambda^*$	$1/\lambda_G^*$	$1/\lambda_{PRI}^*$	i_{actual}	$i_{endoge.}$	difference	Δd	SPRI-IPRI	bop
6. Paraguay	in equilibriu	G	PRI	actual	endogenous		G	PRI	TOTAL
1990	38.84	2.94	56.45	0.1712	0.1183	0.0529	0.0325	(0.0773)	(0.0448)
1991	115.92	3.39	17.74	0.1843	0.1493	0.0350	(0.0017)	(0.0722)	(0.0740)
1992	71.49	23.98	2.77	0.1703	0.1408	0.0294	0.0089	(0.1232)	(0.1142)
1993	186.25	24.26	1.36	0.1714	0.1399	0.0315	0.0129	(0.1304)	(0.1176)
1994	761.07	22.50	0.11	0.1750	0.1426	0.0325	0.0074	(0.2079)	(0.2005)
1995	52327.31	21.81	0.16	0.1794	0.1448	0.0347	0.0050	(0.1772)	(0.1722)
1996	412.30	21.34	3.71	0.1759	0.1408	0.0351	0.0006	(0.1726)	(0.1721)
1997	56.81	21.79	0.41	0.1764	0.1388	0.0377	(0.0016)	(0.1667)	(0.1683)
1998	41.11	27.28	2.34	0.1507	0.1259	0.0248	(0.0026)	(0.0871)	(0.0897)
1999	38.53	18.96	34.20	0.1425	0.1137	0.0288	(0.0309)	(0.0722)	(0.1031)
2000	46.12	17.25	107.87	0.1360	0.0808	0.0552	(0.0435)	(0.0583)	(0.1018)
2001	44.10	28.25	80.12	0.1351	0.0900	0.0451	(0.0095)	(0.0910)	(0.1005)
2002	49.57	17.09	62.20	0.1342	0.0726	0.0616	(0.0363)	0.0060	(0.0303)
2003	57.60	22.25	32.61	0.1475	0.0897	0.0578	(0.0073)	(0.0141)	(0.0214)
2004	71.04	27.99	1.06	0.1452	0.1025	0.0426	0.0187	(0.0403)	(0.0216)
2005	68.78	25.04	0.43	0.1502	0.1086	0.0416	0.0080	(0.0605)	(0.0526)
2006	65.75	25.20	0.94	0.1482	0.1072	0.0410	0.0072	(0.0656)	(0.0585)
2007	112.26	25.49	6.06	0.1352	0.0893	0.0459	0.0127	(0.0566)	(0.0440)
2008	1251.79	32.22	4.73	0.1371	0.0823	0.0548	0.0270	(0.0775)	(0.0505)
2009	87.56	60.54	2.34	0.0000	0.0421	(0.0421)	0.0013	0.0685	0.0698
2010	60.71	25.62	2.41	2.7977	0.0692	2.7285	0.0143	0.0202	0.0345
2011	34.92	32.81	10.30	3.3613	0.0690	3.2923	0.0107	(0.0078)	0.0030
2012	202.05	30.78	4.27	3.5102	0.2534	3.2568	0.0099	(0.0133)	(0.0034)
Employment	n	nequi(G)-n	nequi(PRI)-n	nequi-n	nequi(G)-nG	nequi(PRI)-nP	Unem.rate(act)	gCPI(actual)	Infla. rate
6. Paraguay	under attaining equilibrium			under the same wage rate by sector			actual; to population		
1990	0.0318	(0.5518)	0.0000	0.0000	0.0000	0.0000	(0.0297)	0.3802	0.1011
1991	0.0261	(0.2561)	0.0000	0.0000	(0.3212)	0.0057	(0.0230)	0.2431	0.1077
1992	0.0277	0.0000	0.0000	0.0000	0.0185	(0.0017)	(0.0239)	0.1527	0.0943
1993	0.0270	0.0000	0.0000	0.0000	(0.0288)	0.0026	(0.0230)	0.1809	0.0841
1994	0.0284	0.0000	0.0000	0.0000	(0.0242)	0.0023	(0.0198)	0.2066	0.0756
1995	0.0277	0.0000	0.0000	0.0000	(0.0600)	0.0058	0.0000	0.1338	0.0930
1996	0.0207	0.0000	0.0000	0.0000	(0.0728)	0.0075	(0.0369)	0.0980	0.1067
1997	0.0203	0.0000	0.0000	0.0000	(0.0485)	0.0054	0.0000	0.0701	0.1003
1998	0.0199	0.0000	0.0000	0.0000	(0.4838)	0.0569	0.0000	0.1149	0.0953
1999	0.0214	0.0000	0.0000	0.0000	0.0129	(0.0024)	(0.0423)	0.0667	0.0816
2000	0.0210	0.0000	0.0000	0.0000	(0.0762)	0.0138	(0.0464)	0.0905	0.0650
2001	0.0206	0.0000	0.0000	0.0000	0.0468	(0.0092)	0.0000	0.0724	0.0640
2002	0.0201	0.0000	0.0000	0.0000	0.0671	(0.0125)	(0.0662)	0.1055	0.0372
2003	0.0197	0.0000	0.0000	0.0000	0.0769	(0.0132)	(0.0504)	0.1412	0.0544
2004	0.0194	0.0000	0.0000	0.0000	0.0569	(0.0089)		0.0435	0.0364
2005	0.0190	0.0000	0.0000	0.0000	(0.0996)	0.0146		0.0204	0.0507
2006	0.0203	0.0000	0.0000	0.0000	(0.0334)	0.0055		0.0960	0.0478
2007	0.0183	0.0000	0.0000	0.0000	0.0737	(0.0125)		0.0812	0.0398
2008	0.0179	0.0000	0.0000	0.0000	0.0721	(0.0112)		0.1013	0.0506
2009	0.0176	0.0000	0.0000	0.0000	(0.1460)	0.0209		0.0261	0.0200
2010	0.0173	0.0000	0.0000	0.0000	0.1087	(0.0182)		0.0463	0.0516
2011	0.0170	0.0000	0.0000	0.0000	0.0015	(0.0002)		0.0828	0.0450
2012	0.0183	0.0000	0.0000	0.0000	(0.5608)	0.0821		0.0369	0.0678

Data source: KEWT 8.14-4 for 19 Rest Area by sector, 1990-2012, whose original data are from *International Financial Statistics Yearbook*, IMF.

Chapter 11

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

Robustnes	HA _B * (i)	HA _B * (i)G	HA _B * (i)PRI	HA _Ω *(i)	HA _Ω G*(i)G	HA _Ω PRI*(i)PRI	Width _Ω (i)	Width _Ω G(i)G	Width _Ω P(i)GP
6. Paraguay		G	PRI		G	PRI		G	PRI
1990	0.5409	0.7313	0.4345	1.6183	(0.0527)	1.6724	0.3548	0.1474	#NUM!
1991	0.5228	0.8074	0.4027	1.2436	0.9340	1.0955	0.2594	0.5697	0.2394
1992	0.5249	0.8522	0.4033	1.3121	3.4995	0.9466	0.2794	0.6216	0.2197
1993	0.5141	0.8468	0.3880	1.2368	3.0128	0.9346	0.2629	0.5306	0.2155
1994	0.5078	0.8448	0.3760	1.1937	2.9920	0.8926	0.2618	0.5418	0.2130
1995	0.5098	0.8439	0.3703	1.1991	2.9454	0.9037	0.2595	0.5266	0.2127
1996	0.5220	0.8456	0.3759	1.1841	3.1180	0.8305	0.2225	0.4829	0.1728
1997	0.5451	0.8545	0.3934	1.3181	3.5656	0.8948	0.2400	0.5435	0.1806
1998	0.5663	0.8056	0.4395	1.5054	4.6626	0.8961	0.2650	0.7095	0.1767
1999	0.5790	0.8138	0.4545	1.7097	5.2320	1.0749	0.3057	0.8266	0.2099
2000	0.5774	0.8039	0.4527	1.9808	5.5035	1.5426	0.3423	0.8635	0.2765
2001	0.5802	0.8104	0.4573	1.8783	5.6699	1.1532	0.3239	0.8701	0.2175
2002	0.5726	0.8214	0.4379	2.0215	5.1555	3.4861	0.3414	0.7899	0.5511
2003	0.5459	0.8187	0.4054	1.5365	4.1882	1.0810	0.2685	0.6366	0.2037
2004	0.5364	0.8214	0.3943	1.3740	3.4975	0.9063	0.2426	0.5266	0.1776
2005	0.5382	0.8072	0.4015	1.3572	3.5156	0.8742	0.2381	0.5279	0.1708
2006	0.5366	0.7992	0.4041	1.3835	3.5693	0.8909	0.2501	0.5553	0.1789
2007	0.5210	0.8037	0.3825	1.3216	3.2117	0.9555	0.2286	0.4749	0.1794
2008	0.5015	0.8024	0.3624	1.2309	3.1658	0.8149	0.2140	0.4627	0.1581
2009	0.4995	0.7731	0.3732	1.7177	184.8357	0.8466	0.2779	24.6017	0.1577
2010	0.4606	0.7706	0.3274	1.1514	2.6864	0.9681	0.2019	0.3942	0.1790
2011	0.4555	0.7625	0.3284	1.0899	3.4005	0.6689	0.1911	0.4900	0.1337
2012	0.5881	0.7383	0.5201	1.0857	3.0637	0.7792	0.1868	0.4628	0.1429
Key ratios	α	δ₀	β*	Ω	g_A*=i(1-β*)	x=i*/g_Y*	r*=α/Ω	r_G*=α_G/Ω_G	r_{PRI}*=α_{PRI}/Ω_{PRI}
6. Paraguay					x=a/(i·b*)		G	PRI	
1990	0.1450	1.0357	0.6613	0.9764	0.0401	1.8532	0.1485	0.2583	0.0751
1991	0.1452	1.2279	0.5988	0.9127	0.0599	1.6242	0.1591	0.2296	0.1043
1992	0.1420	1.1787	0.6111	0.9224	0.0548	1.6504	0.1540	0.1793	0.1342
1993	0.1421	1.3151	0.5969	0.8837	0.0564	1.7022	0.1608	0.2143	0.1166
1994	0.1517	1.4368	0.5914	0.8509	0.0583	1.7993	0.1783	0.2131	0.1477
1995	0.1462	1.3982	0.5907	0.8640	0.0592	1.7100	0.1692	0.2134	0.1272
1996	0.1468	1.2616	0.5862	0.9129	0.0583	1.7789	0.1608	0.1831	0.1382
1997	0.1465	0.9946	0.6118	1.0025	0.0539	1.7260	0.1462	0.1550	0.1368
1998	0.1421	0.8389	0.6415	1.0983	0.0451	1.7601	0.1294	0.0681	0.1889
1999	0.1425	0.7979	0.6707	1.1545	0.0374	1.8689	0.1234	0.0330	0.2092
2000	0.1454	0.8442	0.7029	1.1436	0.0240	2.5590	0.1271	0.0075	0.2440
2001	0.1441	0.8171	0.6913	1.1589	0.0278	2.3167	0.1244	0.0452	0.1992
2002	0.1423	0.8643	0.7063	1.1264	0.0213	2.7766	0.1263	0.0336	0.2206
2003	0.1443	0.9854	0.6468	1.0089	0.0317	2.4875	0.1431	0.0852	0.2032
2004	0.1461	1.0633	0.6212	0.9691	0.0388	2.2931	0.1507	0.1429	0.1589
2005	0.1431	1.0419	0.6174	0.9802	0.0415	2.1350	0.1460	0.1199	0.1727
2006	0.1426	1.0550	0.6221	0.9729	0.0405	2.1385	0.1466	0.1140	0.1790
2007	0.1424	1.1945	0.6108	0.9161	0.0348	2.6108	0.1555	0.1386	0.1728
2008	0.1421	1.4362	0.5936	0.8477	0.0335	2.9066	0.1676	0.1576	0.1778
2009	0.1526	1.2557	0.6735	0.8310	0.0138	5.3770	0.1836	0.0212	0.3389
2010	0.0927	2.0657	0.5635	0.7617	0.0302	2.3768	0.1217	0.1538	0.0891
2011	0.1081	2.4250	0.5541	0.7337	0.0308	2.8272	0.1473	0.1003	0.1925
2012	0.3129	1.0783	0.6167	0.9635	0.0971	2.0026	0.3248	0.1031	0.4674
Neutral tests	m_K=M/K	m=M/Y	m_Π=M/Π	r_(DEBT)-r*	r_(DEBT)/r*	(e_(US))/g_Y**	r*-r*(US)	e*(US)	e_(US)e*(US)
6. Paraguay						g_Y**=g_Y*/g_Y*(US)	e*(US)=e(US)+(r*-r*(US))		
1990	0.2357	0.2302	1.5873	0.011	1.077	161.18	0.0502	1258	1.0000
1991	0.2955	0.2697	1.8570	(0.009)	0.943	91.02	0.0699	1380	0.9999
1992	0.3507	0.3235	2.2774	(0.014)	0.909	100.95	0.0574	1630	1.0000
1993	0.3807	0.3364	2.3675	(0.031)	0.808	294.64	0.0740	1880	1.0000
1994	0.3919	0.3334	2.1982	(0.051)	0.711	422.12	0.0946	1925	1.0000
1995	0.3949	0.3412	2.3335	(0.029)	0.829	333.65	0.0859	1980	1.0000
1996	0.3811	0.3480	2.3700	(0.017)	0.892	447.60	0.0819	2110	1.0000
1997	0.3536	0.3545	2.4188	(0.011)	0.926	707.34	0.0741	2360	1.0000
1998	0.2992	0.3286	2.3125	0.001	1.007	1270	0.0611	2840	1.0000
1999	0.3183	0.3675	2.5791	(0.002)	0.986	2368	0.0574	3329	1.0000
2000	0.3076	0.3518	2.4205	(0.008)	0.934	4318	0.0615	3527	1.0000
2001	0.3381	0.3918	2.7185	(0.013)	0.897	3565	0.0486	4682	1.0000
2002	0.3144	0.3541	2.4883	(0.033)	0.737	5006	0.0314	7104	1.0000
2003	0.3200	0.3228	2.2368	(0.040)	0.723	2733	0.0402	6115	1.0000
2004	0.3240	0.3140	2.1496	(0.070)	0.536	2673	0.0471	6250	1.0000
2005	0.3120	0.3059	2.1372	(0.055)	0.625	2448	0.0338	6120	1.0000
2006	0.3066	0.2983	2.0917	(0.055)	0.623	3054	0.0525	5190	1.0000
2007	0.3635	0.3330	2.3377	(0.068)	0.563	3869	0.0798	4875	1.0000
2008	0.4599	0.3899	2.7448	(0.065)	0.613	3120	0.0835	4945	1.0000
2009	0.5272	0.4381	2.8711	(0.069)	0.625	(941)	(0.9004)	4609	1.0002
2010	0.5851	0.4457	4.8093	(0.029)	0.763	752	(3.9624)	4570	1.0009
2011	0.6035	0.4428	4.0976	(0.054)	0.632	129462	(3.9368)	4436	1.0009
2012	0.4994	0.4811	1.5375	(0.220)	0.321	60852	(3.7592)	4285	1.0009

Data source: KEWT 8.14-4 for 19 Rest Area by sector, 1990-2012, whose original data are from *International Financial Statistics Yearbook*, IMF.

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

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

Cost of capit:	$HA_{r^*}(i)$	$r^* - HA_{r^*}(i)$	$v^* = r^*/(r^* - gY^*)$	CC^*_{REAL}	$CC^*_{REAL(G)}$	$CC^*_{REAL(PRI)}$	$CC^*_{NOMINAL}$	$CC^*_{NOM(G)}$	$CC^*_{NOM(P)}$
7. Peru	max. endo. in	REAL	to bubbles	REAL	G	PRI	NOMINAL	G	PRI
1990	0.6579	0.0284	4.3099	0.0066	(0.0038)	0.0077	0.1592	(0.0982)	0.1840
1991	0.0737	0.0329	2.5342	0.0130	(0.0306)	0.0209	0.0421	(0.1613)	0.0631
1992	0.1217	0.0447	1.8434	0.0243	(0.1034)	0.0408	0.0903	(0.4547)	0.1488
1993	0.1577	0.0246	2.1060	0.0117	(0.0235)	0.0193	0.0866	(0.2801)	0.1330
1994	0.1299	0.0235	3.7114	0.0063	0.2417	(0.0002)	0.0413	0.4611	(0.0014)
1995	0.1048	0.0327	28.4554	0.0011	(0.0511)	0.0105	0.0048	(0.2944)	0.0421
1996	0.1098	0.0201	4.8494	0.0041	(0.1053)	0.0070	0.0268	(0.2068)	0.0490
1997	0.0891	0.0232	44.2447	0.0005	0.0093	(0.0011)	0.0025	0.0667	(0.0050)
1998	0.0843	0.0174	19.2834	0.0009	(0.0417)	0.0026	0.0053	(0.1053)	0.0163
1999	0.0717	0.0192	6.5529	0.0029	(0.0598)	0.0096	0.0139	(0.2747)	0.0456
2000	0.0683	0.0194	4.6520	0.0042	(0.0539)	0.0103	0.0188	(0.2320)	0.0467
2001	0.0656	0.0215	2.9699	0.0072	(0.0542)	0.0141	0.0293	(0.2190)	0.0572
2002	0.0603	0.0195	3.3434	0.0058	(0.0412)	0.0107	0.0239	(0.1577)	0.0442
2003	0.0572	0.0174	3.6968	0.0047	(0.0751)	0.0083	0.0202	(0.1496)	0.0378
2004	0.0610	0.0194	2.6908	0.0072	(0.0037)	0.0105	0.0299	(0.0310)	0.0376
2005	0.0755	0.0228	2.0519	0.0111	0.0021	0.0143	0.0479	0.0192	0.0520
2006	0.1515	0.0314	1.5523	0.0202	0.0283	0.0192	0.1179	0.1503	0.1134
2007	0.1664	0.0256	1.7199	0.0149	0.0189	0.0140	0.1116	0.2020	0.0983
2008	0.1253	0.0157	3.0913	0.0051	0.0219	0.0024	0.0456	0.2053	0.0219
2009	0.0744	0.0160	2.8935	0.0055	0.0312	0.0023	0.0313	0.1527	0.0135
2010	0.1219	0.0194	2.4344	0.0080	0.0110	0.0074	0.0580	0.0999	0.0517
2011	0.0551	0.0124	3.2284	0.0038	0.0142	0.0028	0.0209	0.0551	0.0158
2012	0.0618	0.0244	2.9946	0.0082	0.0106	0.0061	0.0288	0.0909	0.0165
Speed years	$1/\lambda^*$	$1/\lambda_G^*$	$1/\lambda_{PRI}^*$	i_{actual}	$i_{endoge.}$	difference	Δd	$SPRI - i_{PRI}$	bop
7. Peru	in equilibrium	G	PRI	actual	endogenous		G	PRI	TOTAL
1990	344.92	22.30	833.38	0.0341	0.7563	(0.7222)	(0.0245)	0.0214	(0.0031)
1991	38.56	12.39	42.52	0.1287	0.1132	0.0156	(0.0246)	(0.0326)	(0.0573)
1992	38.41	4.92	35.04	0.1281	0.1079	0.0202	(0.0411)	(0.0185)	(0.0595)
1993	4.45	6.54	4.62	0.1426	0.1344	0.0082	(0.0331)	(0.0408)	(0.0739)
1994	4.71	25.93	4.46	0.1649	0.1530	0.0119	0.0240	(0.0784)	(0.0545)
1995	0.28	2.98	1.15	0.1872	0.1786	0.0086	(0.0377)	(0.0393)	(0.0770)
1996	0.06	144.09	1.01	0.1746	0.1549	0.0197	(0.0161)	(0.0511)	(0.0672)
1997	13.00	0.52	21.61	0.1853	0.1676	0.0177	(0.0089)	(0.0508)	(0.0597)
1998	389.80	755.98	751.98	0.1836	0.1619	0.0218	(0.0126)	(0.0573)	(0.0699)
1999	52.18	27.73	54.91	0.1694	0.1336	0.0358	(0.0350)	(0.0004)	(0.0355)
2000	43.67	23.08	46.32	0.1578	0.1228	0.0350	(0.0311)	0.0008	(0.0304)
2001	41.78	21.28	44.72	0.1451	0.1067	0.0385	(0.0312)	0.0036	(0.0276)
2002	39.99	26.34	41.89	0.1374	0.1060	0.0314	(0.0238)	0.0057	(0.0182)
2003	39.05	54.95	38.62	0.1388	0.1058	0.0330	(0.0195)	0.0116	(0.0079)
2004	44.90	29.32	50.26	0.1391	0.0954	0.0437	(0.0139)	0.0473	0.0334
2005	48.21	30.54	54.81	0.1426	0.0940	0.0485	(0.0078)	0.0672	0.0594
2006	52.20	92.23	49.24	0.1502	0.1171	0.0331	0.0158	0.0751	0.0909
2007	41.90	102.49	40.07	0.1698	0.1486	0.0212	0.0204	0.0465	0.0669
2008	26.82	67.35	23.89	0.2068	0.1888	0.0180	0.0245	(0.0216)	0.0029
2009	34.27	68.19	31.10	0.1786	0.1222	0.0564	0.0217	0.0135	0.0351
2010	28.50	33.31	28.26	0.3761	0.1703	0.2058	0.0077	0.0210	0.0287
2011	38.14	58.17	36.07	1.8942	0.1018	1.7924	0.0077	0.0210	0.0287
2012	34.15	23.19	40.67	2.8372	0.1171	2.7201	0.0069	0.0337	0.0405
Employment	n	$n_{EQU(G)-n}$	$n_{EQU(PRI)-n}$	n_{EQU-n}	$n_{EQU(G)-n_G}$	$n_{EQU(PRI)-n_P}$	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	47.7166
1991	0.0199	0.0000	0.0000	0.0000	0.8415	(1.0770)	(0.0261)	4.1273	7.4821
1992	0.0205	0.0000	0.0000	0.0000	(0.0353)	0.0038	(0.0423)	0.7340	1.6933
1993	0.0129	0.0000	0.0000	0.0000	0.0024	(0.0003)	(0.0446)	0.4867	0.9494
1994	0.0172	0.0000	0.0000	0.0000	(0.0651)	0.0073	(0.0401)	0.2380	0.5125
1995	0.0316	0.0000	0.0000	0.0000	(0.1111)	0.0134	(0.0320)	0.1111	0.2393
1996	0.0159	0.0000	0.0000	0.0000	(0.0415)	0.0056	(0.0315)	0.1158	0.2409
1997	0.0227	0.0000	0.0000	0.0000	0.0312	(0.0044)	(0.0347)	0.0863	0.2768
1998	0.0165	0.0000	0.0000	0.0000	(0.0638)	0.0087	(0.0351)	0.0713	0.1508
1999	0.0163	0.0000	0.0000	0.0000	(0.0383)	0.0056	(0.0360)	0.0354	0.1285
2000	0.0152	0.0000	0.0000	0.0000	0.0176	(0.0027)	(0.0333)	0.0373	0.1066
2001	0.0142	0.0000	0.0000	0.0000	(0.0178)	0.0027	(0.0356)	0.0200	0.0802
2002	0.0137	0.0000	0.0000	0.0000	0.0584	(0.0089)	(0.0437)	0.0020	0.0820
2003	0.0127	0.0000	0.0000	0.0000	(0.0133)	0.0019	(0.0423)	0.0225	0.0759
2004	0.0122	0.0000	0.0000	0.0000	0.0342	(0.0050)	(0.0428)	0.0364	0.0725
2005	0.0117	0.0000	0.0000	0.0000	(0.0323)	0.0045	(0.0428)	0.0163	0.0813
2006	0.0112	0.0000	0.0000	0.0000	(0.0612)	0.0089	(0.0383)	0.0210	0.0766
2007	0.0107	0.0000	0.0000	0.0000	0.0196	(0.0030)	(0.0378)	0.0167	0.0789
2008	0.0106	0.0000	0.0000	0.0000	0.0722	(0.0109)	(0.0378)	0.0578	0.0897
2009	0.0105	0.0000	0.0000	0.0000	(0.0714)	0.0099	(0.0374)	0.0291	0.0703
2010	0.0114	0.0000	0.0000	0.0000	(0.0720)	0.0108	(0.0360)	0.0159	0.0660
2011	0.0085	0.0000	0.0000	0.0000	0.1043	(0.0170)	(0.0347)	0.0331	0.0652
2012	0.0163	0.0000	0.0000	0.0000	0.0834	(0.0120)	(0.0311)	0.0371	0.0571

Data source: KEWT 8.14-4 for 19 Rest Area by sector, 1990-2012, whose original data are from *International Financial Statistics Yearbook*, IMF.

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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

Robustnes	HA β^* (i)	HA β^* (i)G	HA β^* (i)PRI	HA $\Omega^*(i)$	HA $\Omega^*(i)G$	HA $\Omega^*(i)PRI$	Width $\Omega(i)$	Width $\Omega(i)G$	Width $\Omega(i)PRI$
7. Peru		G	PRI		G	PRI		G	PRI
1990	0.9710	0.8364	0.9859	1.4554	1.5534	1.4470	0.2179	0.2499	0.2151
1991	0.5742	0.5617	0.5755	1.6764	1.6676	1.7064	0.2911	0.3008	0.2944
1992	0.4835	0.4718	0.4848	1.0882	1.6641	1.0534	0.2077	0.3250	0.2005
1993	0.4280	0.4558	0.4247	0.7525	1.0078	0.7340	0.1256	0.1657	0.1225
1994	0.4065	0.3648	0.4112	0.7206	0.9280	0.7393	0.1411	0.1643	0.1445
1995	0.4348	0.4144	0.4375	0.8876	0.8995	0.8921	0.2225	0.2353	0.2221
1996	0.4585	0.3862	0.4674	0.8894	1.4161	0.8841	0.1587	0.2384	0.1569
1997	0.4809	0.4569	0.4841	1.0365	0.8049	1.0795	0.2127	0.1724	0.2200
1998	0.5142	0.4468	0.5227	1.1363	1.3844	1.1362	0.1951	0.2354	0.1942
1999	0.5364	0.4634	0.5459	1.3082	1.3090	1.3080	0.2164	0.2305	0.2147
2000	0.5503	0.4836	0.5589	1.4001	1.4201	1.3977	0.2210	0.2364	0.2192
2001	0.5716	0.5035	0.5804	1.5662	1.5851	1.5640	0.2337	0.2496	0.2319
2002	0.5788	0.5259	0.5855	1.6190	1.6747	1.6128	0.2355	0.2526	0.2336
2003	0.5840	0.5155	0.5924	1.6391	2.4266	1.6159	0.2299	0.3316	0.2260
2004	0.5762	0.5443	0.5803	1.5980	1.2358	1.7027	0.2202	0.1798	0.2319
2005	0.5783	0.5675	0.5798	1.5572	1.2505	1.6683	0.2102	0.1751	0.2226
2006	0.5963	0.5698	0.6001	1.3918	1.2656	1.4117	0.1839	0.1700	0.1861
2007	0.6082	0.6031	0.6090	1.3685	1.1238	1.4174	0.1767	0.1469	0.1826
2008	0.6068	0.6201	0.6048	1.4134	1.2125	1.4489	0.1826	0.1552	0.1874
2009	0.6085	0.6024	0.6094	1.6407	1.4428	1.6771	0.2077	0.1824	0.2123
2010	0.6291	0.6168	0.6311	1.5714	1.3505	1.6132	0.2061	0.1797	0.2111
2011	0.6199	0.6276	0.6187	1.7857	1.9622	1.7698	0.2022	0.2177	0.2009
2012	0.6218	0.6794	0.6127	1.9804	1.5920	2.2435	0.3027	0.2417	0.3386
Key ratios	α	δ_0	β^*	Ω	$g_A^*=(1-\beta^*)$	$x=\frac{r^*}{g_Y^*}$ $x=\frac{a}{(i \cdot b^*)}$	$r^*=\alpha/\Omega$	$r_G^*=\alpha_G/\Omega_G$	$r_{PRI}^*=\alpha_{PRI}/\Omega_{PRI}$
7. Peru							G	PRI	
1990	0.9574	0.9063	0.9722	1.3952	0.0210	1.3021	0.6862	0.4695	0.7065
1991	0.1236	0.7794	0.6611	1.1588	0.0384	1.6518	0.1067	(0.0561)	0.1234
1992	0.1324	1.9248	0.5614	0.7959	0.0473	2.1857	0.1664	(0.3648)	0.2234
1993	0.1187	(1.9564)	0.4638	0.6510	0.0721	1.9042	0.1823	(0.1262)	0.2218
1994	0.0936	(1.3256)	0.4471	0.6104	0.0846	1.3688	0.1534	0.4938	0.1196
1995	0.0930	42.1786	0.5024	0.6764	0.0889	1.0364	0.1375	(0.1124)	0.1683
1996	0.0976	219.5441	0.5003	0.7520	0.0774	1.2598	0.1298	(0.1756)	0.1609
1997	0.0924	2.2610	0.5387	0.8223	0.0773	1.0231	0.1123	0.2288	0.0980
1998	0.0958	1.2465	0.5609	0.9414	0.0711	1.0547	0.1017	(0.0635)	0.1196
1999	0.0937	0.9184	0.5947	1.0318	0.0541	1.1801	0.0909	(0.2000)	0.1229
2000	0.0956	0.8088	0.6111	1.0903	0.0477	1.2738	0.0877	(0.1665)	0.1159
2001	0.1028	0.7099	0.6390	1.1802	0.0385	1.5076	0.0871	(0.1616)	0.1150
2002	0.0976	0.6626	0.6452	1.2236	0.0376	1.4267	0.0797	(0.1055)	0.1006
2003	0.0938	0.6230	0.6469	1.2563	0.0374	1.3708	0.0747	(0.1243)	0.0958
2004	0.0974	0.6701	0.6418	1.2122	0.0342	1.5914	0.0804	0.0713	0.0815
2005	0.1176	0.6908	0.6410	1.1962	0.0338	1.9506	0.0983	0.1265	0.0944
2006	0.2109	0.7544	0.6407	1.1526	0.0421	2.8105	0.1829	0.2097	0.1793
2007	0.2278	0.7069	0.6417	1.1863	0.0532	2.3891	0.1920	0.3166	0.1736
2008	0.1771	0.5860	0.6345	1.2565	0.0690	1.4782	0.1409	0.3044	0.1167
2009	0.1221	0.5277	0.6538	1.3502	0.0423	1.5281	0.0904	0.2041	0.0738
2010	0.1916	0.5494	0.6628	1.3560	0.0574	1.6972	0.1413	0.2036	0.1317
2011	0.0983	0.4550	0.6664	1.4579	0.0340	1.4487	0.0674	0.0882	0.0643
2012	0.1224	0.5779	0.6964	1.4196	0.0356	1.5014	0.0862	0.2311	0.0609
Neutral tests	$m_K=M/K$	$m_Y=M/Y$	$m_{PI}=M/PI$	$r_{(DEBT)}-r^*$	$r_{(DEBT)}/r^*$	$(e_{(US)})/g_Y^{**}$ $g_Y^{**}=g_Y^*/g_Y^*(US)$	$r^*-r^*(US)$	$e^*(US)$	$e_{(US)}/e^*(US)$
7. Peru							$e^*(US)=e(US)+(r^*-r^*(US))$		
1990	0.0282	0.0393	0.0410	47.06	69.58	6.28	0.5879	517.49	0.9989
1991	0.0577	0.0669	0.5413	7.408	70.46	101	0.0175	960.02	1.0000
1992	0.0883	0.0703	0.5306	1.572	10.44	118	0.0698	1630.07	1.0000
1993	0.1069	0.0696	0.5861	0.792	5.341	272	0.0956	2160.10	1.0000
1994	0.1032	0.0630	0.6728	0.383	3.494	352	0.0697	2180.07	1.0000
1995	0.1019	0.0689	0.7413	0.135	1.979	0.28	0.0541	2.36	0.9771
1996	0.0968	0.0728	0.7456	0.131	2.010	0.44	0.0509	2.65	0.9808
1997	0.1304	0.1072	1.1605	0.188	2.670	0.61	0.0403	2.77	0.9855
1998	0.1363	0.1284	1.3405	0.066	1.654	0.95	0.0334	3.19	0.9895
1999	0.1379	0.1423	1.5183	0.057	1.626	1.82	0.0249	3.53	0.9930
2000	0.1158	0.1263	1.3211	0.038	1.437	2.30	0.0221	3.55	0.9938
2001	0.0683	0.0806	0.7846	0.015	1.168	1.98	0.0113	3.46	0.9967
2002	0.0682	0.0835	0.8556	0.022	1.273	1.48	(0.0152)	3.50	1.0043
2003	0.0680	0.0854	0.9104	0.019	1.250	1.39	(0.0282)	3.43	1.0082
2004	0.0830	0.1006	1.0327	0.012	1.144	1.69	(0.0233)	3.26	1.0072
2005	0.1011	0.1209	1.0282	0.006	1.059	1.74	(0.0139)	3.42	1.0041
2006	0.1071	0.1234	0.5853	(0.075)	0.590	1.67	0.0889	3.28	0.9729
2007	0.1256	0.1489	0.6540	(0.087)	0.544	1.40	0.1163	3.11	0.9626
2008	0.1345	0.1690	0.9545	(0.036)	0.748	0.92	0.0569	3.20	0.9822
2009	0.1408	0.1900	1.5564	(0.004)	0.954	(0.20)	(0.9936)	1.90	1.5241
2010	0.1609	0.2182	1.1393	(0.056)	0.605	0.22	(3.9428)	(1.13)	(2.476)
2011	0.1736	0.2531	2.5749	0.010	1.151	71.94	(4.0166)	(1.32)	(2.041)
2012	0.1967	0.2792	2.2804	(0.005)	0.945	126.2	(3.9978)	(1.45)	(1.761)

Data source: KEWT 8.11-4 for 19 Rest Area by sector, 1990-2012, whose original data are from *International Financial Statistics Yearbook*, IMF.

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References

- Castillo, A., Magana, A., Pujadas, A., Martinez, L., and Godinez, Z. (2005). Understanding the Interaction of Rural People with Ecosystems: A Case Study in a Tropical Dry Forest of Mexico. *Ecosystems* 8 (6): 630-643.
- Clark, C. (1940). *The Conditions of Economic Progress*. London: Macmillan. 504p.
- Eicher, T. S. (2001). Transitional Dynamics in a Two-Sector Non-Scale Growth Model. *Journal of Economic Dynamics & Control* 25 (1-2): 85-113.
- Geng, Y. (2008). Developing the Circular Economy in China: Challenges and Opportunities for Achieving 'Leapfrog Development.' *International Journal of Sustainable Development and World Ecology* 15 (3): 231-239.
- Gokan, Y. (2003). The Speed of Convergence and Alternative Government Financing. *Journal of Economic Dynamics & Control* 27 (9): 1517-1531.
- Higgins, B. (1956). The "Dualistic Theory" of Underdeveloped Areas. *Economic Development and Cultural Change* 4 (Jan, 2): 99-115.
- Hollander, Samuel. (1973). *The Economics of Adam Smith*. Toronto: University of Toronto Press. 351p.
- Ito Mitsuharu. (1993). *Keynes*. Tokyo: Kodansha. 421p.
- Kuruvilla, S., Erickson, CL., and Hwang, A. (2002). An Assessment of the Singapore Skills Development System: Does it Constitute a Viable Model for Other Developing Countries? *World Development* 30 (8): 1461-1476.
- Kuznets, S. (1941). *National Income and Its Composition 1919-38*. New York: National Bureau of Economic Research. 929p. (2v. in 1).
- Kuznets, S. (1952). *Long-Term Changes in the National Income of the United States of America Since 1870*. In: S. Kuznets ed., *Income and Wealth Series II* (Vol. 2, Mar 1), Cambridge, Eng.: Bowes & Bowes. 29-241p.
- Kuznets, S. (1966). *Modern Economic Growth: Rate, Structure, and Spread*. New Haven: Yale University Press. 529p.
- Kuznets, S. (1971). *Economic Growth of Nations: Total Output and Production Structure*. Cambridge, Mass: Belknap Press of Harvard University Press. 363p.
- Lall, S. (2001). Competitiveness Indices and Developing Countries: An economic Evaluation of the Global Competitiveness Report. *World Development* 29 (9): 1501-1525.
- Lewis, A.W. (1954). Economic Development with Unlimited Supplies of Labour. *The Manchester School of Economic and Social Studies* 22 (May, 2): 139-191, Manchester: Manchester School, Economic Dept.
- Lewis, A. W. (1978). *Growth and Fluctuations 1870-1913*. London: George Allen & Unwin. 333p.
- Lewis, A. W. (1984). The State of Development Theory. *American Economic Review* 74 (March, 1): 1-10.

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- Lewis, Haney, H. (1911). *History of Economic Thought*. New York: Macmillan. 567p.
- Malthus, T. R. (1798). *An Essay on the Principle of Population*, Reprinted for the Royal Economic Society with Notes by J. Boar. London: Macmillan, 1926. 396p.
- Mamiya, Youke. (1989). *Keynes and Hayek*. Tokyo: Chuou Koronsha. 198p.
- Papageorgiou, C. (2007). Is the Asymptotic Speed of Convergence a Good Proxy for the Transitional Growth Path? *Journal of Money, Credit and Banking* 39 (1): 1-24.
- Petty, W. (1690). *Political Arithmetick*. London: Printed for Robert Clavel. 117p.
- Ranis, G., and Fei, J. C. H. (1964). *Development of Labor Surplus Economy: Theory and Policy*. Homewood: Richard Irwin. 324p.
- Reinhart, C. M., and Rogoff, Kenneth, S. (2009). *This Time is Different: Eight Centuries of Financial Folly*. Princeton, NJ: Princeton University Press. xiv+463p.
- Ricardo, D. (1821). *The Principles of Political Economy and Taxation*, 3rd ed. London: J. Murray. 538p.
- Rostow, W. W. (1960). *The Stages of Economic Growth*. London: Cambridge University Press. 178p.
- Samuelson, Paul, A. (1937). A Note on Measurement of Utility. *Review of Economic Studies* 4 (Feb. 2): 155-161.
- Schultz, T. W. (1964). *Transforming Traditional Agriculture*. New Haven: Yale University Press. 212p.
- Schumpeter, J. A. (1912). *Theorie der Wirtschaftlichen Entwicklung*. Leipzig: Duncker & Humblot. 548p.
- Schumpeter, J. A. (1939). *Business Cycles: A Theoretical, Historical and Statistical Analysis of the Capitalist Process*. New York: McGraw-Hill. xvi, 1095p.
- Schumpeter, J. A. (1954). *History of Economic Analysis*. New York: Oxford University Press. 1260p.
- Sen, A. (1973). *On Economic Inequality*. Oxford: Clarendon Press. 118p.
- Smith, A. (1776). *An Inquiry into the Nature and Causes of the Wealth of Nations*. London: Printed for W. Trahan, and T. Cadell. 2v. (v1. 510p., v2. 587p.)
- Torii, Yasuhiko. (1979). *Theory of Economic Development*. Tokyo: Toyo Keizai. 299p.
- Uzawa, Hirofumi. (1989). *Thought of Economics*, Tokyo: Iwanami, 165p.
- West, E. G. (1969). *Adam Smith: The Man and His Work*. Canterbury: University of Kent. 21p.