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On the Function of Key Currency

Masayuki Otaki
(Institute of Social Science, University of Tokyo)

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Masayuki Otaki
Institute of Social Science, University of Tokyo

7-3-1 Hongo Bukyo, Tokyo 113-0033, Japan.
E-mail: ohtaki@iss.u-tokyo.ac.jp
Phone: +81-3-5841-4952 Fax: +81-3-5841-4905

Abstract

Some studies (e.g., Matsuyama, Kiyotaki, and Matsui (1993)) assert that the selection of a currency as a key currency is a kind of hysteresis dominated by contingencies. However, historical evidence suggests that this selection depends on some plausible and inevitable economic factors.

This study examines the following factors: overwhelming industrial power and possession of huge amounts of foreign assets and gold. On the basis of these ample economic potentials, the key-currency country enjoys her seigniorage in return for the bearing the sovereign risk of the surrounding countries that accept her currency. Thus, the key-currency system can be regarded as an international insurance system that relies on the economic power of the key-currency country.

Key Words: Key-Currency as an Insurance System, Seigniorage, Sovereign Risk

1 Introduction

Key currencies such as dollar, previously pond-starling, are indispensable for facilitating the international clearing of numerous deals. However, the composition of the selection of the implicit concordance on the selection of the key currency is not necessarily clear. The paper analyzes this problem.

Some research (e.g., Matsuyama, Kiyotaki, and Matsui (1993)) suggests that the selection of the key currency is determined by an inertia that arises some contingencies (a kind of hysteresis).[1] However, historical evidence indicates that the selection of a new currency depends on some definitive factors.

First, the key-currency country possesses overwhelming industrial power that can monopolize even the whole world market. Such power alleviates the anxiety that the currency mutates only on paper. In other words, money issued by the key-currency country is implicitly and sufficiently endorsed by durable the goods produced by that country. In this sense, holding the key currency can play the role of insurance as for the other countries (referred to as *surrounding* countries hereafter) that face serious domestic production (supply) risks such as sovereign ones.

Second, key-currency countries own huge amounts of foreign assets or gold, which in addition to the huge potential supply capacity, helps in guaranteeing the substantial value of the key currency and enhancing its circulation. These factors seems to be in favor of *surrounding* countries that accept the key currency.

On the other hand, the key-currency country also enjoys her own prerogative, that is, seigniorage. Thus, the key-currency system can be regarded as a kind of international insurance system, in which the key-currency country is implicitly in charge of an insurance company and the *surrounding* countries are her insurants. In other words, the seigniorage is the insurance fee, and the key currency that is circulated among and within the *surrounding* countries correspond to the insurance security.

In what follows, on the basis of Otaki (2007, 2009, 2011), we construct

[1] See Fukao and Otaki (1993) for the rigorous definition of hysteresis.

an open-economy macroeconomic model which possesses a rigorous microeconomic foundation with a key-currency country, as mentioned above.

The structure of the paper is as follows. In Section 2, we construct a model that describes the economies of $n+1$ countries (n is the number of the *surrounding* countries and can adequately represent large numbers, and 1 is the number of the key currencies), and show how the aforementioned implicit insurance system works. Section 3 deals with the comparative statics and the welfare analysis of the change in the key-currency supply. Section 4 contains the brief concluding remarks.

2 The Model

2.1 Structure of the Model

The model is a two-period overlapping-generations model based on Otaki (2007). Each country produces the same differentiated goods by monopolistic entrepreneur iz, where i generically refers to the characteristics of the country and z refers to that of the good. Each country contains $m\lambda_i$ entrepreneurs who receive all earned profits and the seigniorage and $(1-m)\lambda_i$ employees whose incomes come from only nominal wages.

The key-currency country K is differentiated from other *surrounding* countries S only with respect to the fact that K has an enormous population λ_k per generation, while the population of each S is limited by λ_s ($n\lambda_s = \lambda_k$). Since the only production resource is labor, which is supplied by that young generation, this asymmetric assumption implies that the economy of the key-currency country has a huge potential production power as compared to the *surrounding* countries.

In addition, each *surrounding* country faces a serious supply shock, though temporary, or sovereign risk. However, the key-currency country runs no such risk, implies that the production process is far more reliable. For simplicity, when the supply shock is induced, the *surrounding* country cannot produce any goods. The probability that is allotted to such a disaster is assumed to be ϵ ($0 < \epsilon \ll 1$).

All individuals possess an identical lifetime utility function U_i:

$$U_i \equiv U(c_{ijt}^1, c_{ijt}^2) - \delta_{ij}\alpha, \quad c_{ijt}^h \equiv \Big\{\sum_{z=1}^{h}[c_{ijt}^l(z)]^{1-\eta^{-1}}dz\Big\}^{\frac{1}{1-\eta^{-1}}}, \quad \eta > 1, \quad (1)$$

where U is a well-behaved homothetic function. $c_{ijt}^h(z)$ denotes the consumption of good z of individual j with age l in i th country during period t. α is the disutility of labor, and δ_{ij} is a definition function that takes value unity when individual j in country i participates and zero when he/she is unemployed. Unit labor produces unit good.[2]

In this situation, the incentive of insurance emerges between the key-currency and *surrounding* countries. That is, instead of allowing the domestic circulation of the key currency and handing over their seigniorage, the *surrounding* countries import goods in exchange for the currency when they experience the aforementioned problem. Thus, an almost one-sided capital flow (deficit in the key-currency country, surplus in the *surrounding* countries) emerges, and the key-currency system becomes incentive compatible and hence sustainable.

2.2 Construction of the Model

2.2.1 Individuals

Since the lifetime consumption utility function is homothetic, the corresponding expenditure function Ψ is represented as

$$\Psi \equiv \psi(p_t, p_{t+1})f(u), \quad p_t \equiv \Big\{\sum_{z=1}^{h}[p_t(z)]^{1-\eta}dz\Big\}^{\frac{1}{1-\eta}}. \quad (2)$$

u is the fixed utility level, and $\psi(\ \cdot\ )$ is an increasing linear homogenous function of (p_t, p_{t+1}). To introduce risk aversion into the utility function, we assume that $f'' > 0$.

[2]The assumption the utility function of all individuals in the world are identical is restrictive. Nonetheless, our main concern is to show that the imbalance in the current account, namely, the international capital movement, is caused without the difference in inflation rates across countries owing to the difference in time preferences. From this perspective, aforementioned assumption seems to be admissible as a simplification device.

As long as economies are located at the imperfect employment equilibrium, as Otaki (2007, 2009) shows, the equilibrium nominal wage is kept equal to the nominal reservation wage W_t^R. The latter wage is easily induced from Equation (2) as

$$W_t^R = \psi(p_t, p_{t+1}) f(\alpha). \tag{3}$$

2.2.2 Firms

From the assumption about the instantaneous utility function, the demand function D_{zt} for good z that is monopolistically produced by some firm becomes

$$D_{zt} \equiv [\frac{p_t(z)}{p_t}]^{-\eta} y_t,$$

where y_t is the real GDP in terms of current goods. From the profit maximization condition and Equation (3), we obtain the following fundamental difference equation concerning the evolution of the price level:

$$p_t = \frac{\psi(p_t, p_{t+1}) f(\alpha)}{1 - \eta^{-1}} = \frac{p_t \psi(1, \pi^*) f(\alpha)}{1 - \eta^{-1}}, \quad \pi^* \equiv \frac{p_{t+1}}{p_t}. \tag{4}$$

We must note that Equation (4) holds for all countries including the key-currency country. Accordingly, the purchasing power of the key currency can be preserved worldwide because the same equilibrium inflation rate π^* is attained in every country, independent of the nominal money supply of the key currency.[3]

In other words, the fixed exchange rate system is sustainable even under perfect capital mobility. Hence, for simplicity, we can assume that the nominal exchange rate is fixed to unity worldwide.

2.2.3 Governments

The government of the key-currency country adopts the following two segregated monetary-fiscal policies:

1. The key-currency country supplies domestic money through wasteful government expenditure. The expenditure per capita amounts to $\lambda_k G (\equiv \lambda_k \cdot Pg)$.

[3] Otaki (2011) defines that *money as credible* in a situation where the nominal money supply does not affect the price level.

2. Money towards foreign countries (*surrounding* countries) is delivered by importing the composite good defined by Equation (1). All imported goods are transferred to young entrepreneurs in the key-currency country equally.

To keep the analysis as simple and clear as possible, we confine the discussion into stationary equilibrium. Hence the monetary authority in the key-currency country sets each real money supply constant. Let us denote these values as $m\lambda_k m^d$, $mn\lambda_s m_j^f$, respectively. j denotes the states of economy. In state 1, no disturbance occurs and country s enjoys her consumption. When state 2 occurs, serious supply shock assaults country s, and she can never produce any good.

First, the key-currency country decides her money supply m_1^f before which state occurs. Second, if state 2 happens, she adjusts money supply from m_1^f to m_2^f including economical aid for the *surrounding* country.

Accordingly, seigniorage per capita $S(m^d, m_1^f, m_2^f \epsilon)$ enjoyed by the key-currency country is

$$\begin{aligned} S(m^d, m_j^f : \epsilon) &= [1 - \frac{1}{\pi^*}][m^d + [1-\epsilon][\frac{nm\lambda_s}{m\lambda_k}]m_1^f] - \epsilon\frac{nm\lambda_s}{m\lambda_k}m_2^f \\ &= g + \{[1-\epsilon][1 - \frac{1}{\pi^*}]m_1^f - \epsilon m_2^f\} \equiv g + s(m_1^f, m_2^f : \epsilon). \end{aligned} \tag{5}$$

$s(\ \cdot\ )$ on the right-hand side of Equation (5) represents the seigniorage per capita from the *surrounding* countries which is equal to the transfer to a young entrepreneur in the key-currency country.[4,5]

2.3 Market Equilibrium

Three kinds of markets exist in our model: goods markets, labor markets and money markets. We can confine our attention to the former two markets as per the Walras' law. Each labor market is in interior equilibrium if the

[4]Even if the real money stock m^f is directly transferred to the young entrepreneurs, not by indirect transfer assumed in the text, the obtained results are entirely unchanged.

[5]The number of *surrounding* countries n is assumed to be large enough that the law of large numbers approximately holds.

equilibrium nominal wage is equal to the nominal reservation wage W_t^R.[6] Eventually, only the analysis concerning goods markets remains.

Since the lifetime utility function of the consumption stream is assumed to be homothetic, the consumption function of a young individual in each country C_q is

$$C_i \equiv c(\pi^*) y_q^d, \quad q = k \text{ or } s,$$

where y_q^d is the per capita disposable income of country q. Thus, combining Equation (5), the equilibrium condition for the aggregate good market in key-currency country is

$$\begin{aligned} \tilde{y}_k + s(\ \cdot\ ) &= c(\pi^*)[\tilde{y}_k + s(\ \cdot\ )] + g + \frac{1}{\pi^*} m^d \\ &= c(\pi^*)[\tilde{y}_k + s(\ \cdot\ )] + m^d. \end{aligned} \tag{6}$$

$\tilde{y}_k$ is the per capita real GDP in the key-currency country. The third term of the right-hand side on Equation (6) is the per capita real expenditure of old individuals.

Solving Equation (6) on $\tilde{y}_k$, the equilibrium GDP of the key-currency country is

$$\tilde{y}_k^* = \frac{m^d}{1 - c(\pi^*)} - s(\ \cdot\ ). \tag{7}$$

Note that the same amount of equilibrium GDP per capita $\tilde{y}_k^*$ decreases with the seigniorage from foreign countries $s(\ \cdot\ )$, while the disposable income is invariant as long as the real domestic money supply m^d is kept constant. The reason for this is that the increment of the savings of young individuals from real GDP should be entirely crowded out by the increase of imports funded by the seigniorage, given that the total purchasing power of the government and old individuals is unchanged.

The equilibrium of the aggregate goods market in each *surrounding* country is conditional on whether the emergent sovereign risk is induced. That is,

$$\tilde{y}_s = \begin{cases} c(\pi^*)\tilde{y}_s + m_1^f, & \text{with probability } 1 - \epsilon, \\ m_2^f, & \text{with probability } \epsilon. \end{cases} \tag{8}$$

[6] Regarding the properties of boundary equilibrium, see Otaki (2011).

2.4 Key Currency as an Insurance Device

The indirect utility function $\tilde{U}$ is identical across all countries as

$$\tilde{U} = f^{-1}\Big(\frac{x_{qj}}{\psi(1,\pi^*)}\Big),$$

where x_{qj} is the nominal gain of country q $(k, s \in q)$ in state j $(j = 1, 2)$ obtained from the key-currency system. We must note that the existence of the utility of employees can be neglected since the world economy is assumed to have uniformly fallen into the imperfect employment equilibrium where all employees are indifferent to whether they are employed. By some elementary calculus (see Otaki (2007, 2009)), the profits earned by an entrepreneur are $\eta^{-1}\tilde{y}$.

Hence x_{kj} and x_{sj} is defined from Equations (6) and (8) as[7]

$$\begin{cases} x_{k1} = \dfrac{\eta^{-1}}{1-c(\pi^*)}[1-\dfrac{1}{\pi^*}]m_1^f, & \text{with probability } 1-\epsilon, \\ x_{k2} = -m_2^f, & \text{with probability } \epsilon, \end{cases} \tag{9}$$

$$\begin{cases} x_{s1} = \dfrac{\eta^{-1}}{1-c(\pi^*)}m_1^f, & \text{with probability } 1-\epsilon, \\ x_{s2} = \eta^{-1}m_2^f, & \text{with probability } \epsilon. \end{cases} \tag{10}$$

Since the key-currency country is free from the *surrounding* countries' sovereign risks by the law of large numbers, she can behave as if risk-neutral in this matter. In contrast, since $f'' > 0$, each *surrounding* country becomes averse to such a risk. In addition, when state 2 occurs, entreprenuers and employees share the amounts of money m_2^f in accordance with the income distribution rate, $\eta^{-1} : 1-\eta^{-1}$.

Thus, the key currency becomes an implicit insurance device. That is, when some urgent necessity leads to a sovereign crisis, the key-currency country exports her goods in return for her currency hoarded sovereign countries, rather than importing goods in exchange for her seigniorage. Since

[7] In addition, in the key-currency country, full-employment equilibrium is desirable. Since the decision regarding how much money she should supply for this purpose can be separated from that regarding how much seigniorage she will receive, we can concentrate on the seigniorage problem without discussing the domestic economic problem in the key currency.

small *surrounding* countries are risk averse, such a system is incentive compatible with both countries.

Figure 1 shows the optimal insurance contract for the key-currency country. This figure is a square Edgeworth's box diagram with sides of $\eta^{-1}\lambda_s$ which is equal to the maximal profits of a *surrounding* country. $\eta^{-1}\overline{\lambda_s}$ $(\overline{\lambda_s} \leq \lambda_s)$ is the upper bound of the real profits that a *surrounding* country can earn without the help of the key-currency network.

Line I_{KC} is the break-even contract for the key-currency country. The downward shift of the line indicates that the key-currency country gains more advantage and profits from this contract.

Curves I_{SA}, I_{SB}, I_{SC} are indifference curves of the representative *surrounding* country in terms of real income. Since f'' is assumed to be positive, the curves become strictly concave.

The incentive-compatible optimal contract that maximizes the gain of the key-currency is depicted by Point E_{high} in Figure 1. The representative *surrounding* country completely hedges against the sovereign risk and obtains a fixed real GDP.[8] Moreover, the concavity of the utility function indicates that *surrounding* countries can improve by the negotiation with the key-currency country.

3 Comparative Statics

3.1 Sovereign Risk and the Supply of the Key Currency

Here we consider a comparative static analysis concerning the sovereign risk ϵ. Whenever such a risk is mitigated and ϵ takes smaller value, as illustrated by Point E_{low} in Figure 1, the key currency country purchases more goods, resulting in more money being supplied to *surrounding* countries. Thus, the real GDP increases in every *surrounding* country. In contrast, the real GDP

[8] From Equation (10),

$$\frac{\eta^{-1}m_1^f}{1-c(\pi^*)} = \eta^{-1}m_2^f \quad \Leftrightarrow \quad m_1^f = [1-c(\pi^*)]m_2^f,$$

holds. It implies that the ex-ante real money supply is always kept m_1^f independent of the state of the previous period. Therefore, the description of equilibrium is consistent.

in the key-currency country decreases owing to complete crowding out by increased imports (see Equation (7)).

In addition, Figure 1 clearly shows that *surrounding* countries improve their economic welfare by reducing the risk. On the other hand, the welfare of the key-currency country is

$$f^{-1}\Big(\frac{\eta^{-1}y_k + s(m_1^f, m_2^f : \epsilon)}{\psi(1, \pi^*)}\Big) = f^{-1}\Big(\frac{[1-\eta^{-1}]s(m_1^f, m_2^f : \epsilon) + \dfrac{\eta^{-1}m^d}{1-c(\pi^*)}}{\psi(1, \pi^*)}\Big). \tag{11}$$

The first term of the bracket represents the utility derived from seigniorage. Since the key-currency country can get various goods without working, and economize wage payments, of which distribution ratio is $1 - \eta^{-1}$. Thus, although the increasing in money supply to the *surrounding* countries improves key-currency country's welfare, and the current account imbalance and unemployment become prominent.

3.2 The International Common Currency

First, we shall define the international common currency comparing it with the key-currency system.

Definition 1 *The international common currency is different from the key-currency system with the respect to the fact that the net gain per capita from issuing currency towards surrounding countries $s(\epsilon)$ is attributed to the common property, not the monopoly prerogative, as in the case of the key-currency system.*

Under this definition, the profit-maximizing point E_{high} is no longer efficient because the monopoly rent should be distributed among the *surrounding* countries equally. This implies that the combination of the origin O_k on the break-even line I_{KC} and the indifference curve I_{SC} of the representative *surrounding* country offers the most efficient allocation. Every country can hedge against her sovereign risk and earn a larger real GDP, since sufficient currency is supplied to enhance the effective demand.

However, the conflict of interest emerges between the former key-currency country, now which turns to the founder of the world common currency, and

surrounding countries. This is because the monopolized seigniorage has saved labor force and wage payment. It is clear from Equation (11) that the welfare of the former key-currency is lessened by the construction of the international common currency.[9]

3.3 Vulnerability of the Key-Currency System

Insurance cannot be effective against macroeconomic synchronized shocks. War is the most illustrative example. In World War II, the U.K. was heavily indebted to the U.S. for the munitions for Egypt, India, and herself. In addition to the weakened industrial power, such indebtedness resulted in a serious outflow of gold from the U.K. This is considered to be one of the primary reasons that the U.K. abdicated the right to be the key-currency country.

Although, strictly speaking, this example may be considered beyond the scope of this theory because the unlimited emancipation of capital flow strengthens the international cohesion of the business cycle. In this situation, experiencing difficulties in sustaining the key-currency system is expected.

4 Concluding Remarks

This article describes the key-currency system as a kind of international insurance against idiosyncratic sovereign risk. The results obtained are as follows.

First, the risk is completely hedged under the key-currency system. As the risk decreases, the key-currency country supplies more money, resulting in the expansion of the *surrounding* countries. In this sense, the means of reduce the sovereign risk is crucial for developing the economy. However this, in turn, indicates that the of trade balance deficit in the key-currency

[9]The problem regarding the ownership of the worldwide seigniorage is a very sensitive problem. For example, at the Bretton Woods conference, the proposal for the world common currency, *Unitas*, was not accepted after all. Furthermore, Keynes strived hard to maintain pond starling as a key currency. See Moggridge (1992, Ch.28, 29) for details.

country becomes prominent.

Second, the world common currency founded by the former key-currency country can provide more money and improve the worldwide economic welfare except for the key-currency country. This is partly because the net seigniorage that the key-currency country receives is entirely distributed to the *surrounding* countries and stimulates their economies, partly because such emancipation of the monopolized seigniorage is harmful to the economic welfare of the key-currency country.

Finally, we must consider the threat of serious macroeconomic shocks. When the *surrounding* countries simultaneously fall into a serious slump and move to convert the key currency into goods (or gold), the key-currency system cannot be sustainable.

References

[1] Fukao, K., and Otaki, M., 'Accumulation of human capital and the business cycle', Journal of Political Economy 101 (1993), pp.72-99.

[2] Matsuyama, K., Kiyotaki, N., and Matsui, A., 'Toward a theory of international currency ', Review of Economic Studies 60 (1993), pp. 283-307.

[3] Moggridge, D. E. Maynard Keynes: An Economist's Biography, (1992), Routledge, London.

[4] Otaki, M. 'The dynamically extended Keynesian cross and the welfare improving fiscal policy ', Economics Letters 96 (2007), pp. 23-29.

[5] Otaki, M. 'A welfare economic foundation for the full-employment policy ', Economics Letters 102 (2009), pp. 1-3.

[6] Otaki, M. 'A pure theory of aggregate price determination ', Theoretical Economics Letters (2011), forthcoming.

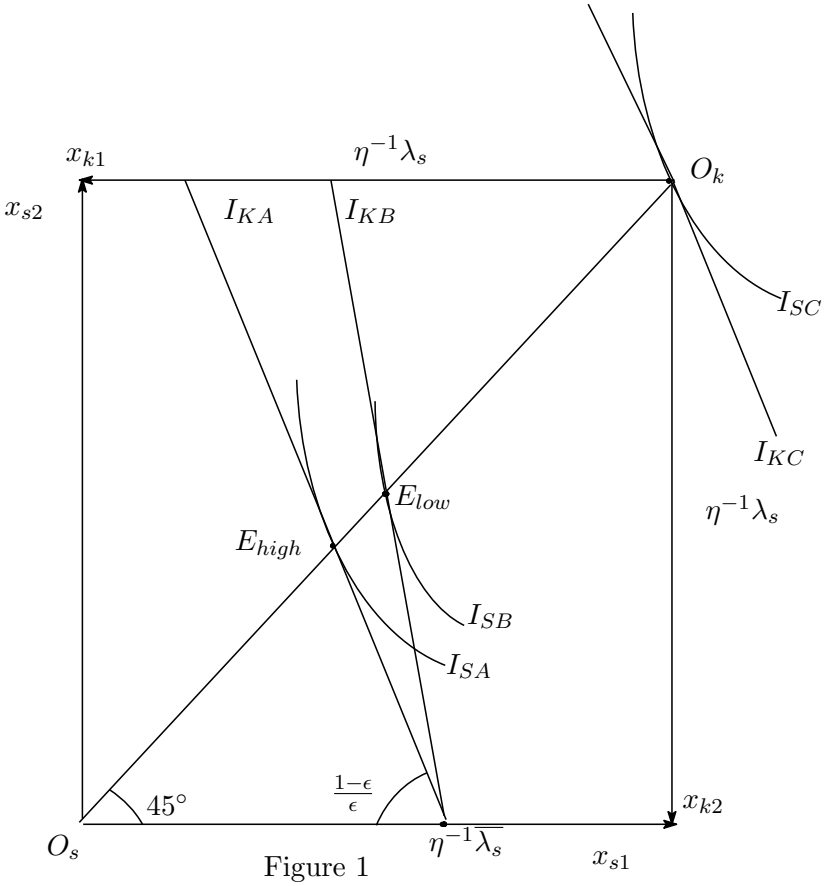
x_{k1}
$\eta^{-1}\lambda_s$
O_k
x_{s2}
I_{KA}
I_{KB}
I_{SC}
I_{KC}
E_{low}
$\eta^{-1}\lambda_s$
E_{high}
I_{SB}
I_{SA}
$45°$
$\frac{1-\epsilon}{\epsilon}$
x_{k2}
O_s
$\eta^{-1}\overline{\lambda_s}$
x_{s1}

Figure 1

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