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THE MALAYSIAN BALANCE OF PAYMENTS: KEYNESIAN APPROACH VERSUS MONETARY APPROACH

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ABSTRACT

There are two competing theories of balance of payments the Keynesian and the monetary theories Each of the two approaches provides distinct explanations on how the determinants of the balance of payments could lead to equilibrium and disequilibrium of the balance of payments account Both theories also rank differently the importance of merchandise/real account (Trade Balance) and monetary account (Official Reserve Transactions Balance) of the balance of payments. The paper attempts to determine whether the Keynesian or the Monetarist approach is the more correct theory as far as the Malaysian balance of payments is concerned, so that the results will enable the government to formulate the correct policies on the balance of payments in the future.

To conduct the examination of the two theories, a model based on the distributed-lag polynomial, specifically on the Almon lag, is developed In order to pursue the comparison of the two views, two types of tests are done. The first test checks the correctness of the signs of the coefficients of the regressors in the two equations of financial flow (from Official Reserve Transactions Balance) and trade flow (from Trade Balance) The second test is an examination of the speed of adjustment of the two accounts in order to decide which account is normally affected first by any disturbance on the balance of payments

The results of the study show that the signs of regressors of the Trade Balance (TB) equation support the Keynesian view while the signs of regressors of the Official Reserve Transactions Balance (ORTB) equation support both Keynesian and Monetary views It is also found that the ORTB dominates the TB in terms of quickness of adjustment, so the ORTB is an autonomous account and the TB is an accomodating account

As far as Malaysia's balance of payments policies are concerned, the government had formulated and implemented correct policies as reflected by the results of the study Fiscal policy had been used on the TB and a mix of fiscal and monetary policies had been used on the ORTB since 1970s. Obviously, the government had also paid more attention on the monetary account (ORTB account), such as services account and the flows of 'hot money', which was mainly the source of the balance of payments deficit

The conclusion is, thus, that Keynesian theory should be adopted if the balance of payments disequilibrium is due to disequilibrium in the TB account. On the other hand, both Keynesian and monetary theories should be incorporated in policies designed if the disequilibrium of the balance of payments is caused by disequilibrium in the ORTB account. Additionally, the monetary account (ORTB account) is considered as the main account which is first affected by any disturbance in the balance of payments Thus, the policy formulated and implemented on the Malaysian balance of payments in the future should largely concentrate on this account

خلاصة البحث

هنالك نظريتين عن ميزان المدفوعات، و هما النظرية الكينيزية و النظرية النقدية. كل من هذين المنهجين يقدم لنا تفسير مختلف عن الآخر لكيفية احتمال أن محددات ميزان المدفوعات يمكن أن تقود إلى الاتزان أو عدمه في حساب ميزان المدفوعات. كل نظرية من هاتين النظريتين أيضا لها ترتيبها المستقل فيما يختص بأهمية كل من الميزان التجاري و الاحتياطي القانوني(الحساب النقدي) في ميزان المدفوعات. يتمثل العرض من هذه الدراسة في المحاولة لتحديد ما إذا كانت النظرية الكينيزية أو النظرية النقدية هي الأصح آخذين في الاعتبار ميزان المدفوعات الماليزي. لان ذلك سيمكن صناع القرار من تحديد شكل السياسات الأمثل لميزان المدفوعات في المستقبل. لاختبار هاتين النظريتين فقد تم تكوين أنموذج على نمط أل (Distributed lag polynomial)و بالتحديد على أل (Almon lag). لقد قمنا بإجراء اختبارين للمقارنة بين الآراء المكونة للنظريتين. يتمثل الاختبار الأول في فحص صحة علامات(سالبة أو موجبة) معاملات المتغيرات المستقلة لكل من معادلتي التدفق المالي(من ميزان الاحتياطي القانوني) و التدفق التجاري (من الميزان-التجاري). أما الاختبار الثاني فقد اجري لتحديد سرعة الاستجابة للعوامل التي تؤثر على ميزان المدفوعات بواسطة كل من الحسابين المذكورين أعلاه (الاحتياطي القانوني و الميزان التجاري).

أظهرت نتائج الدراسة أن علامات معاملات المتغيرات المستقلة لمعادلة الميزان التجاري تؤيد وجهة النظر الكينيزية. أما علامات معاملات المتغيرات المستقلة لمعادلة ميزان الاحتياطي القانوني تؤيد رأي النظرية النقدية. و توضح النتائج أيضا أن معادلة ميزان الاحتياطي القانوني هي الأسرع في الاستجابة للعوامل التي تؤثر على ميزان المدفوعات. و لذا فيستنتج من هذا أن ميزان الاحتياطي القانوني هو الحساب المستقل و أن الميزان التجاري هو الحساب المساعد.

فيما يختص بالسياسات الماليزية تجاه ميزان المدفوعات، تشير نتائج هذه الدراسة على صحة صياغة و تنفيذ تلك السياسات بواسطة الحكومة الماليزية. مد السعيات فقد طبقت السياسات المالية على الميزان التجاري. أما بالنسبة لميزان الاحتياطي القانوني فقد تم تطبيق مزيج من السياسات النقدية و السياسات المالية. و يتضح أن الحكومة قد أولت اهتمام اكبر للحساب النقدي و خصوصا حساب الخدمات بالإضافة إلى المتدفقات النقدية المؤقتة، التي تمثل المصدر الأساسي للعجز في ميزان المدفوعات.

تتمثل خلاصة هذه الدراسة في انه إذا كان عدم الاتزان في ميزان المدفوعات ناتج عن عدم الاتزان في الميزان التجاري فيجب الأخذ بالنظرية الكينيزية. ومن ناحية أخرى، فإذا كان عدم الاتزان في ميزان المدفوعات كان بسبب عدم الاتزان في الحساب النقدي فيجب الأخذ في الاعتبار كل من النظرية الكينيزية و النظرية النقدية عند صياغة السياسات المطلوبة. إضافة إلى ذلك، فان الحساب النقدي يعتبر الأسرع استجابة للمؤثرات التي تطرأ على ميزان المدفوعات. ولهذا فان صياغة و تنفيذ سياسات ميزان المدفوعات الماليزي في المستقبل يجب أن تركز و بصورة كبيرة على الحساب النقدي.

APPROVAL PAGE

I certify that I have supervised and read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a research paper for the degree of Master of Economics

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DECLARATION

I hereby declare that this research is a result of my own investigations, except where otherwise stated. Other sources are acknowledged by endnotes giving explicit references and a bibliography is appended.

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This work is dedicated to my beloved husband, Mohd Isa b. Kasim,

and my lovely children, Muhamad Arif Amin and Nurul Aqmal Risa,

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LIST OF ABBREVIATIONS

BNM	Bank Negara Malaysia
dd	demand
Dev	Devaluation
GNP	Gross National Product
IR	International Reserves
IMF	International Monetary Fund
KA	Keynesian Approach
MA	Monetary Approach
MBP	Monetary Approach to the balance of payments
OECD	Organisation of Economic Development Countries
OLS	Ordinary Least Square
ORTB	Official Reserves Transactions Balance
PDL	Polynomial Distributed Lag
Rev	Revaluation
TB	Trade Balance

CHAPTER 1

INTRODUCTION

The Malaysian economy has gone through rapid structural changes since independence in 1957 Despite the rapid economic growth in Malaysia particularly between 1970 and 1990, with an average of 6 7 per cent per annum, the current account in the Malaysian balance of payments has been in deficit since 1989 The deterioration of the balance of payments in 1989 was spurred by very high imports of intermediate and investment goods[1] Such imports, however, was necessary to generate additional capacity for the future Nonetheless, it posed new challenges to the Malaysian economy Overall, the current account remained in deficit at about 0 8 per cent of GNP over the Sixth Malaysia Plan period (1991 – 1995) More policies were geared to formulate effective measures to trim down the persistently large deficit particularly in the services account which had been the main source of the deficit

Due to the problem of balance of payments encountered by Malaysia for almost 7 years (1989 – 1995), the present study attempts to analyse the Malaysian balance of payments A model based on the distributed lag polynomial will be used on two accounts of the balance of payments, namely Trade Balance (TB) and Official Reserves Transactions Balance (ORTB), to determine whether the Keynesian approach (KA) or the Monetary approach (MA) provides a better description of the Malaysian balance of payments behaviour In order to pursue the comparison of the two views of international finance, two types of tests will be done The first test refers

to the correctness of the signs of the coefficients of the regressors in the two equations of financial and trade flows The second test is an examination of the speed of adjustment of the real account (Trade Balance) versus the monetary account (Official Reserve Transactions Balance) The results of the first test will conclude which theory, the Keynesian or the Monetary, will best describe the Malaysian balance of payments account and therefore should be the basis of policies designed to explain and influence the account The results of the second test, on the other hand, will determine which account, Trade Balance or Official Reserves Transactions Balance, is having the faster influence on the Malaysian balance of payments account The results of the tests will then be compared to the policies which have been implemented by the Malaysian government throughout the period of study. This will help to explain the success and the failure of some policies implemented in the attempt to eliminate the balance of payments disequilibrium problem

Objectives of study

Specifically, the present study will attempt

1. to determine whether the Keynesian or the Monetary approach is the correct theory to be applied, as far as the balance of payment in Malaysia are concerned particularly on the TB and ORTB. In other words, the paper will try to examine the effects of independent variables on the dependent variables in both accounts by looking at the signs of parameters of the equations in both accounts The signs of coefficients will enable us to describe which approach is adopted in the Malaysian balance of payment

If the coefficient signs of all variables or most of the variables in the TB and ORTB are statistically significant and conform to those of the KA, it could be concluded that Malaysian international accounts are supporting the Keynesian theories Thus, the Keynesian theories of international finance should be incorporated in policies designed to explain or influence international financial and trade movements On the other hand, if the coefficient signs are statistically significant and conform to the MA, it implies that the MA triumphs in Malaysian international accounts Thus, the monetary theories will be suitable to be considered in the policies designed

2 to investigate the speed of adjustment of the real account (Trade Balance) and the monetary account (Official Reserves Transactions Balance) in order to know which account will have the faster influence on the overall balance of payments accounts In this case, real account consists of the flow of merchandise goods and monetary account consists of money flows in both current and capital accounts (Malindretos, 1991)

This test is the most important test, for it deals in an indirect way with the essential question of which account is the most important one to analyse. The MA emphasizes the money account, often to the exclusion of the real account The point that the MA makes indirectly is that the ORTB is disequilibrated first and then the TB may become disequilibrated In other words, any disturbances in the world system will first impact the ORTB and then the TB The KA says the exact opposite, that is, the regressors should first affect the TB and then the ORTB

The test will be done by examining the mean lag of the same independent variables in

the TB and ORTB equations If the mean lag is shorter in the TB equation, the implication is that the disturbance of the said variables affects the real account first If it is shorter in the ORTB, however, the disturbance disequilibrates the money market first, and then it disturbs the TB Again, the result of the test will be significant to decide which theories should be best incorporated in policies designed in the case of Malaysian balance of payments

3. to relate the results obtained in 1 and 2 to the policies implemented by Malaysian government in those period of time mentioned in the study (1974 – 1995) in order to analyse the success of the policies implemented

Significance of study

The topic discussed in this paper is important since no study has been made on the influences of the two approaches in the case of Malaysian balance of payments Most of the previous studies were concerned with the effects of specific variables on the international finance such as exchange rates or income level without further analysing different theories which might be applied to Malaysian balance of payments accounts This study could also be considered as another attempt made to add to empirical studies on Malaysian balance of payments by using econometric models Based on available literature, most studies on Malaysian balance of payments are found to be descriptive in nature while only a few empirical studies were attempted recently

More importantly, the conclusion of this study might be useful in policies designed by the government to explain or influence international financial and trade movements

This is particularly significant in a situation where the nation might experience balance of payments disequilibrium over a long time period such as long-term balance of payments deficit

The outline of this study is as follows First, a survey on a number of studies on the present topic is done under literature review (Chapter 2) Chapter 3 explains the theoretical model This is followed Chapter 4 which explains the data and methods used to construct the models which are used to test the two so-called approaches Chapter 5 interprets and discusses the results of the tests on the models with a comparison of the two views Finally, Chapter 6 discusses and analyses some Malaysian policies on balance of payments which would explain the results of the empirical study in Chapter 5 and Chapter 7 concludes the paper

CHAPTER 2

LITERATURE REVIEW

Malaysia is a small open economy in which the external sector especially the inflow of foreign capital, exports and imports play an important role However, few studies have been done on the balance of payments in Malaysia Chew (1975) published a book entitled *Malaysian Balance of Payments: 1960 - 1970* but this study only concentrated on the development of the Malaysian balance of payments up to 1970 Studies by Boadway & Flatters (1991) and Ariff & Semudram (1987) attempted to discuss the problems and policies of balance of payments in Malaysia Though the studies discussed some important issues of balance of payments in Malaysia and how to deal with them, no attempt was made to develop an econometric model for it

A study on *A Structural Model for Malaysian Balance of Payments: 1963 - 1982* by Salleh (1991) is one attempt made to construct an econometric model of balance of payments for Malaysia according to the nature of its economy by using time series data It estimated the model's coefficients using three multiple regression estimation techniques namely Ordinary Least-Squares, Two-Stage Least-Squares and Three-Stage Least-Squares estimation It also derived some suggestions for the balance of payments policy

Most studies on international finance are concentrated on other countries such as Sri Lanka (Wijesinghe, 1985), Switzerland (Rich. 1990) and Japan and European countries (Bhar & Malliaris, 1998) These studies, however, analysed particularly

the impact of exchange rate volatility on the trade balance of the countries The concentration on a single independent variable might not be sufficient to explain the overall behaviour or trend of the BOP account

Boughton (1990) analysed an almost similar type of study to the present study in which the relationship between exchange rate and current account balances was examined via a model of two large cooperating countries Examples were discussed in which two countries aiming to reduce an external imbalance should shift their monetary-fiscal policy mix in the same direction The explanation is that interest rates affect the investment accounts of creditor and debtor countries in opposite directions, and this effect will normally be the dominant influence of monetary policy on current account balances. In these circumstances, the sign of the exchange rate change in relation to the change in the external balance will be ambiguous

This interesting study by Boughton will be a guide to the present study of monetary and real variables effects on Malaysian balance of payments account. This present paper, however, is extended to include the speed adjustment test on the monetary variables (Monetarist approach) and real variables (Keynesian approach) in order to investigate the quickness of adjustment of the real account (TB) versus the monetary account (ORTB) on international account

A similar study on the Federal Republic of Germany was done by Malindretos (1991) The results of the study were ambivalent First, the signs of the regressors at times support the Keynesian (KA) and at other times the Monetary view (MA), depending on the lag and the choice of the model Second, the speed adjustment of

real variables approximately equaled that of nominal variables either in the same or in the two different international accounts Neither of the international accounts dominated the other in terms of quickness of adjustment The implication from this study is that both approaches are useful in explaining international financial and trade flows for the Federal Republic of Germany and therefore both theories of international finance should be incorporated in policies designed to explain or influence international financial and trade movements.

A study by Miller (1978) suggested a perspective on the relationship between the state of money market and international reserve flows which was done by focusing on the monetary approach to the balance of payments (MBP) and its relationship to more traditional thinking about balance of payments Miller used two versions of Monetary approach an equilibrium MBP and a disequilibrium MBP. The equilibrium version was quite general, but the disequilibrium version requires some special assumptions It also investigated the conditions under which the alternate monetary approaches would give correct conclusions about the level of international reserves or balance of payments More importantly, the study suggested that the state of money market may bear no necessary relationship to the balance of payments if the government pursues an interest rate pegging-type of monetary policy, or if there is a nonzero value for the government budget. The study, however, paid very little attention on the Keynesian or traditional approach of balance of payments

Similarly, studies by Melitz & Sterdyniak (1979) and Magee (1976) concentrated their works mostly on the MA of the balance of payment The former tried to rescue the MA from a certain simplism in theoretical formulation and test procedure which

could prove more damaging to it in the long run than any amount of criticism. The analysis was done on official reserves and the foreign exchange rate in France covering both fixed and flexible exchange rates regimes. The latter critically reviewed the empirical evidence on the operation of international monetary mechanism under fixed and floating exchange rates as well as some recent contributions to the MA of the BOP.

CHAPTER 3

THE TEORETICAL MODEL

The Balance of Payments Equilibrium and Disequilibrium

The balance of payments can be defined as a complete tabulation of the total market value of goods, services and financial assets that domestic residents, firms, and governments exchange with residents of other nations during a given period (Daniels & VanHoose, 1999) A nation's balance of payments is a system that accounts for flows of income, expenditures as well as the flow of financial assets It consists of a number of different accounts, mainly three accounts· the current account, the private capital account, and the official settlements balance

The current account measures the flow of goods, services, income and transfers or gifts between domestic residents, businesses and governments and the rest of the world The balance of trade, that is the value of exported goods less the value of imported goods, is part of the current account Most economists consider the balance of trade to be the most accurately measured balance of payments, because it measures the trade of tangible items that, in many countries, must be registered with customs agents

While the current account covers income earning and spending in the course of the year, the capital account shows the movement of capital in and out of the country It tabulates the flows of financial assets between domestic private residents and foreign

private residents. These financial assets include physical assets and financial assets such as bonds, bills, stocks, deposits, and currencies The final account, the official settlements balance, measures the transaction of financial assets and deposits by official government agencies. These types of transaction are typically conducted by the central banks and finance ministries or treasuries of national governments

The total summation of all debits and credits in the current account, private capital account and official settlements balance should be zero If it is not zero, then an offsetting entry appears in the balance of payments, which is called 'statistical discrepancy' The overall balance of payments is the sum of the credits and debits in the current account, capital account, official settlements, and the statistical discrepancy. This overall balance of payments is necessarily equal to zero because debit entries offset each and every credit entry and the statistical discrepancy offsets any error Thus, the balance of payments is in equilibrium when the sum of the debits and credits in the current account and capital account equal zero, so that the official settlements balance is zero If the official settlements balance is positive or negative the balance of payments is not in equilibrium (disequilibrium) A positive official settlements balance reflects a balance of payments deficit and a negative official settlements balance reflects a balance of payments surplus

Keynesian Approach versus Monetary Approach

It is well known that there are two competing theories of international finance (balance of payments) the Keynesian and Monetary theory of disequilibrium and adjustment (Malindretos, 1991). Each of the two approaches vies for primacy of place

both in case of fixed and flexible exchange rates

The Keynesian Approach (KA) to balance of payments disequilibrium and adjustment was developed in the twentieth century Most of the theories developed under this approach were basically based on the work of John M Keynes The most well known theories developed are elasticities theories and absorption theories of balance of trade and payments The elasticities approach provides an analysis of how devaluations of exchange rate and price level will affect the balance of trade depending on the elasticities of supply and demand for foreign exchange and foreign goods The theory of elasticities leads to what is called the "J-curve effect" which refers to the pattern of the balance of trade following a devaluation

On the other hand, absorption approach to the balance of trade is a theory that emphasizes how domestic spending on domestic goods changes relative to domestic output In other words, the balance of trade is viewed as the difference between what the economy produces and what it takes for domestic use or absorbs (Melvin, 1992) However, these two approaches can only be viewed as a theory of the balance of payments in a world without capital flows Thus, the balance of trade (TB) regression function of KA could simply be written as

$$(X - M)_t = b_0 + b_1 Y_t + b_2 P_t + b_3 ER_t$$

where

Y is income level
P is price level
X is exports
M is imports
ER is exchange rate (the units of foreign currency given for domestic currency)
t is a certain time period