

## 1. Review of developmental process of exchange rate systems in the world

From hard-peg exchange rate (ER) regime to floating ER regime, the world has experienced the long process with many changes. No one can deny the important role of the Bretton Woods System, one of many exchange rate systems in the world. This system was established in 1944 with America playing the leading role. In this system, it was suggested that there should be a combination of the advantages of both flexible and fixed ER systems. This system has also been known as the system of fixed-but-adjustable exchange rates. In the 1950s, the Canadian government decided to apply the floating regime to its currency. Britain devaluated the pound. Together with the trade deficit of America of US\$30 billions, President Nixon, the US president at that time, announced the inconvertibility of the dollar into gold. The system collapsed.

After the collapse of the Bretton Woods, each country followed different exchange rate systems that best suited its economy. A large majority of countries followed the floating system. Some countries pegged their currencies to another currency; some countries pegged to the basket of selected currencies; and so on.

## 2. Models of exchange rate determination and various issues under the floating exchange rate system

In terms of foreign exchange rates, the appreciation or depreciation of a domestic currency against other currencies will affect the economy. So, in a specific period of time, the government (more precisely, the central bank) will determine the exchange rate which best suits the current conditions and the goals of the economy.

Determination of exchange rate plays an important role in government policies to run the economy. There are many different models of exchange rate determination to which the government can study to plan its economic policy, as well as to sort out the various issues arising under the floating exchange rate system.

### 2.1 The monetary models of exchange rate determination

All monetary models admit that the relative money supplies in the economy play a crucial role to explain the exchange rate. They start by stating that "the exchange rate is the price of one money in terms of

# Exchange Rate Fluctuations & Macroeconomic Fundamentals Australian Experiences

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another" and "the exchange rate movements can be explained by changes in the supply and demand for national money stock".

### 2.2 The flexible-price monetary model

With the assumption that the purchasing power parity (PPP) holds continuously, the exchange rate (spot rate) will depend on three different variables.

#### a. Relative money supplies

With an increase of money supply in the economy, there will be an equivalent depreciation of the domestic currency in order to maintain the level of PPP.

#### b. Relative levels of national income

With any increase in the national income, there will be an increase in the demand for money. This increase will lead to the fall of domestic prices. To keep the PPP level unchanged, exchange rates will appreciate. On the other hand, with any increase in income of foreign country, there will be a fall of prices in foreign economy. This fall will lead to depreciation in the domestic currency.

#### c. Relative interest rates

An increase in interest rates will lead to a decrease of money demand. That decrease will lead to a depreciation of domestic currency to maintain PPP.

This model is very important to the theories of exchange rate determination because, as a matter of fact, it introduces the role of money supplies and inflationary expectations and economic growth as determinants of exchange rate changes.

### 2.3 The Dornbusch sticky-price monetarist model

The underlying principle of the model is that prices in goods markets and wages in labor markets are determined in the sticky-price manner. They are very slow to change and resistant to the downward pressure.

According to Dornbusch, if the interest rate in a domestic market is

lower than that in a foreign market, there must have an equivalent expected rate of appreciation of the domestic currency to compensate for the lower domestic interest rate.

### 2.4 The Frankel real interest-rate differential model

This model was a combination of the flexible-price monetary model with the insights of the sticky-price monetary model. This model assumed that the expected rate of depreciation of the exchange rate is a positive function of the gap between the spot rate and the long-run equilibrium rate.

## 3. The behavior of the Australian dollar since the adoption of the floating exchange rate regime in December 1983

### 3.1 A brief overview of the Australian dollar in different periods of time

In the past, the Australian dollar (AU\$) was pegged against the pound sterling until 1971. Therefore, the behavior of the pound against other currencies reflected the behavior of the AU\$ against these currencies. At that time, the behavior of the pound was managed by the regulations of the Bretton Woods system.

In August 1971, America decided to abolish the convertibility of the dollar into gold. This decision was the main reason the Bretton Woods system collapsed. For the sake of the stability of the domestic currency, the Australian dollar was pegged to the American dollar. In 1974, the Australian government decided to peg its currency to a basket of currencies whose countries have a large number of transactions with Australia. This choice reflected the trade-weighted exchange rate in Australian economy. And then, in December 1983, Australia decided to completely float its domestic currency.

### 3.2 The main factors to affect the behavior of the Australian dollar

Since the adoption of the floating exchange rate system, each country



has faced many challenges in implementing its macroeconomic policies. And Australia is no exception. AU\$ faced many changes in the period of December 1983 to date. Since December 1983, the Australian dollar has been through periods of strength and weakness, but in general "it has weakened against the US dollar".

In short, the behavior of the AU\$ was determined by many factors in the Australian economy. They can be summarized as follows:

#### 3.2.1 Interest rates and interest rate differentials

During the 1980s, the interest rates in Australia were always higher than in the US. That was why there were huge capital inflows into Australia. And then, the AU\$ appreciated against the US\$. For almost the whole period from January 1984 to January 1990, the interest rate differentials between Australia and the US were positive. The trend was reversed after that. In that case, the behavior of the AU\$ was determined by the behavior of the interest rate differentials in the economy. During the 1980s, the AU\$ appreciated against the US\$ whereas it depreciated against the US\$ during the 1990s.

#### 3.2.2 Inflation

Australia has experienced high inflation rates over the long period from 1983 to 2000 compared with

that of the US. It resulted in the depreciation of the AU\$ against the US\$.

#### 3.2.3 The current account deficits

The weakness of the AU\$ could be further explained by the increase of its current account deficits and foreign debts. Interests paid for foreign debts would make the current accounts worse unless other components of the current account such as trade account balances, interest and dividends received, exports of services improved.

From the data enclosed, for the period from 1983 to 2000, in some years, the balances of Australian trade account were positive whereas the balances of its current account were always negative. In reality, it was very difficult, or impossible, to get a consistent relationship between the deficits of current account (external account) and the exchange rate. It was obvious that "the weak external account must have been a contributing factor to the weakness of the currency since the end of 1983."

#### 4. Conclusion

Empirical results of the regression model revealed that it is very difficult to explain the behavior of the exchange rates on the base of fundamentals such as the CPI, interest rates, current accounts, trade balances and so on. Under exchange

rate floating regime, exchange rates fluctuate continuously and it is usually under many types of pressures in which macroeconomic fundamentals are only one factor.

Many conclusions can be drawn from the Australian case. Australia has experienced many changes of its exchange rate regime due to the requirements of its economy. All decisions must be on time to avoid bad things such as the Asian financial crisis in 1997. From the Australian experiences, each country must be very aware of the changes in some major macroeconomic factors such as the deficits of current account, inflation and interest rates. Any decision for adjustments must be implemented strictly and on time to keep everything under control in the long run.

In the case of Vietnam, since Vietnamese companies in all international transactions are price-takers, exchange rates between the VND and other currencies affect strongly operations of businesses as well as strategies of national economic development. Devaluation or evaluation of domestic currency compared with other currencies, in all cases, is problematic matter for the government. Careful consideration about exchange rate policy at any time is required to protect the economy from the world shocks. ■

SELECTED DATA OF EXCHANGE RATES & FUNDAMENTALS  
AUSTRALIA & THE UNITED STATES OF AMERICA 1983 - 2000

Year	Exchange rate <sup>1</sup>	Trade balances (Millions of US\$)		Current account <sup>2</sup> (Millions of US\$)	Interest rates <sup>3</sup>			Consumer price index <sup>4</sup>	
					USA	AUS	USA		
		AUS	USA	AUS				AUS	USA
1983	0.9024	(2,778)	(57,130)	(6,330)	(44,220)	13.63	10.79	54.40	65.40
1984	0.8796	(4,434)	(108,280)	(8,860)	(99,010)	13.58	12.04	56.50	68.20
1985	0.7008	(4,425)	(121,120)	(9,172)	(124,470)	15.24	9.93	60.40	70.60
1986	0.6709	(4,728)	(138,530)	(9,807)	(147,170)	18.09	8.33	65.80	71.90
1987	0.7009	(2,161)	(151,680)	(7,966)	(160,650)	16.56	8.20	71.40	74.60
1988	0.7842	(3,068)	(114,160)	(11,929)	(121,250)	15.10	9.32	76.60	77.60
1989	0.7925	(7,659)	(93,120)	(18,034)	(99,500)	19.58	10.87	82.40	81.40
1990	0.7813	(3,212)	(80,860)	(16,031)	(78,960)	18.17	10.01	88.40	85.70
1991	0.7791	1,059	(31,190)	(11,185)	3,690	14.28	8.46	91.20	89.40
1992	0.7353	(924)	(36,390)	(11,213)	(48,480)	11.06	6.25	92.10	92.10
1993	0.6801	(1,500)	(68,079)	(9,821)	(82,480)	9.72	6.00	93.80	94.80
1994	0.7317	(4,550)	(96,650)	(17,031)	(118,200)	9.55	7.14	95.60	97.30
1995	0.7415	(5,177)	(96,370)	(19,487)	(109,890)	11.12	8.83	100.00	100.00
1996	0.7829	(710)	(101,840)	(15,483)	(120,940)	11.00	8.27	102.60	102.90
1997	0.7441	1,493	(107,760)	(12,575)	(139,820)	9.31	8.44	102.90	105.30
1998	0.6294	(6,448)	(166,081)	(18,072)	(217,410)	8.04	8.35	103.70	107.00
1999	0.6453	(10,743)	(261,850)	(23,074)	(324,390)	7.51	7.99	105.30	109.30
2000	0.5823	(4,540)	(375,760)	(15,520)	(444,690)	8.78	9.23	110.00	113.00

Note: (1) US dollars per Australian dollar. (2) Balances on goods and services (3) Lending rate (%)  
(4) 1995 = 100, period average (%)

Source: International Financial Statistics Yearbook - 2001; International Monetary Fund