Thailand's Macroeconomic Policy after July 1997*

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Abstract
The Bank of Thailand could have eased its monetary policy to prevent a slowdown in 2001. An expansionary monetary policy or budget deficit financed by money creation can spur growth in Thailand during recession, provided the Thai central bank does not intervene in the foreign-exchange market. The baht-dollar exchange rate cannot be disengaged from the yen-dollar rate by central bank intervention in the long term. Monetary policy seems to be more effective than other policy alternatives during the current debt deflation episode in Thailand.

1. Introduction

As of 2002 Thailand had not fully recovered from the 1997 currency crisis. The recession in the aftermath of the economic crisis lasted only two years, and Thailand, like other countries in the region, experienced a rebound in 1999 and 2000. The performances of countries in the region in the aftermath of the crisis differed, depending on their trade exposure and macroeconomic policy responses to the external shocks. Whereas China and South Korea were able to grow rapidly in 2001, most Southeast Asian countries suffered from economic contraction or experienced a slowdown because of the global recession.

In this paper I discuss Thailand's macroeconomic policy responses to the changing external environment, focusing

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on the period after July 1997. Could Thailand have done better if its macroeconomic policy had been different in the aftermath of the crisis? I address the effectiveness of the exchange rate policy and of fiscal and monetary strategies in stabilizing output and the price level.

2. Thailand's macroeconomic development since the Asian financial crisis

Table 1 shows the monthly average values of the year-to-year rate of change of six important macroeconomic variables in Thailand between the currency float in July 1997 and the end of 2001. I divide this period into three episodes. The first episode is the period of currency turmoil and deep recession that occurred between July 1997 and December 1998. The second episode is the recovery in 1999 and 2000, after stability had returned to the foreign-exchange markets. The last episode is the slow growth in 2001, when there was also a global economic downturn.

Manufactured output showed a sharp V-shape in the first two episodes and then grew only 1.3 percent in 2001. To what extent are macroeconomic policy responses responsible for this deviation from Thailand's trend growth path? Can we attribute the fluctuations to external factors, such as the U.S. slowdown or the appreciation of the yen?

Real government expenditure was cut deeply during the crisis episode, on average by 11.2 percent (table 1). The share of government expenditure in GDP was less than 16 percent, however, so the contraction in public spending was not perhaps the leading factor in the 1997–98 recession in Thailand. Nevertheless, in the aftermath of the crisis, real public spending did not increase enough to help revitalize the economy: government expenditure grew by 1.1 percent on average between 1999 and 2000 (table 1). After the current government came to power in 2001, public expenditure began to grow rapidly.

The 14-day repurchase market rate of interest is the key policy instrument of the Bank of Thailand for inflation targeting. The rate was raised to 16.9 percent in July 1997 at the height of the fierce battle against currency speculators and was increased to 23.4 percent in January 1998 to prevent capital flight. By July 1998, a year after the float, the rate had been reduced to 14.1 percent. Monetary policy was eased after the exchange rate was stabilized. Throughout 1999 and 2000, expansionary monetary policy was pursued, leaving the repurchase market rate at only 1.8 percent. (In July 2001 the Bank of Thailand, under a new governor, changed its policy stance by raising the key interest rate to 2.5 percent, despite the global trend of declining interest rates.) As a result of the tight monetary policy during the crisis episode, the mone-

Table 1. Average growth of macroeconomic variables in Thailand (1997–2001)

Macroeconomic variable	July 1997 to December 1998	January 1999 to December 2000	January 2001 to December 2001
Manufacturing output index (percentage change)	−8.27	7.99	1.25
Government expenditure (percentage change)	−11.22	1.12	2.13
CPI (percentage change)	7.67	0.94	1.86
Nominal exchange rate (baht/US$)	40.33	−0.51	14.09
Repurchase rate of interest (14 days)	15.38	1.80	1.75
Monetary base (percentage change)	2.15	3.60	7.00

Source: *Bank of Thailand (http://www.bot.or.th).*

Note: *Figures are averages of monthly data.*

tary base grew by only 2.2 percent (table 1). During the recovery episode the monetary base grew faster (3.6 percent).

The GDP growth rate can be decomposed into different components of aggregate demand. As table 2 suggests, consumer spending generally accounts for more than half of the fluctuation (percentage change) in Thailand's GDP growth. It is evident from the decomposition of GDP components that both private investment and consumption were major factors in the 1997 and 1998 recessions. In 1998, GDP contracted by 10.5 percent, which mainly resulted from negative contributions of 6.3 percentage points from consumption reduction and 17.4 percentage points from investment shortfalls. Had it not been for the positive contribution from net exports (12.8 percent), GDP in 1998 could have contracted at a much more alarming rate. Net exports were a positive contribution in the crisis period because of the 40 percent depreciation of the baht (table 1). During the downturn, baht depreciation prevented further decline in output.

Compared with net exports, government spending did not contribute much to GDP growth, particularly in 1997 and 1998. The small contribution of this factor is not surprising, because the budget was balanced before the crisis broke out and the stringent conditions imposed by the IMF did not permit a budget deficit. The budget cuts at the beginning of the IMF austerity program in late 1997 resulted in a negative contribution to GDP growth by the public sector. In addition, because the share of public spending in GDP in Thailand is below 18 percent, it is unlikely to contribute to growth as much as private spending. The importance of public spending, however, may be understated in table 2, because the accounting exercise pre-

Table 2. Decomposition of Thailand's GDP growth into aggregate demand components (percentge change)

Year	GDP	Consumption	Investment	Government expenditure	Net exports
1995	9.24	4.29	5.93	0.43	−1.40
1996	5.90	3.15	2.26	0.95	−0.47
1997	−1.37	−0.75	−9.47	−0.24	9.08
1998	−10.51	−6.26	−17.40	0.32	12.83
1999	4.43	2.31	1.63	0.31	0.19
2000	4.64	2.64	2.13	0.25	−0.38
2001	1.81	0.93	−0.26	0.02	1.14

Source: *Bank of Thailand (http://www.bot.or.th).*

Table 3. Thailand's wage and price adjustments and capacity utilization during 1997–2000

Year	Price (CPI)	Real average wage rate of all sectors	Capacity utilization (%)
1997:1	4.53	6.82	68.72
1997:2	4.86	7.35	57.44
1998:1	7.83	−0.09	51.90
1998:2	9.65	−3.86	48.78
1999:1	4.68	−4.09	55.06
1999:2	−0.32	−1.53	57.39
2000:1	0.16	−0.56	59.87
2000:2	1.68	−1.49	59.14

Source: *Bank of Thailand, labor force survey (http://www.bot.or.th).*

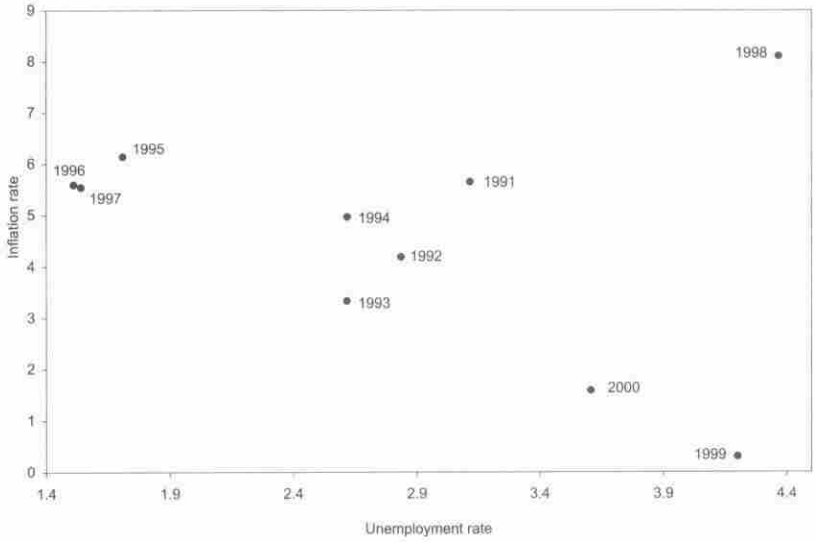
sented in the table does not take the multiplier effects of government spending into consideration.

Table 3 reports changes in the real average wage rates of all sectors of the Thai economy between 1997 and mid-2000. The largest wage cut was 4 percent and occurred in the second half of 1998 and the first half of 1999. Because of wage deflation, inflation was subdued despite the 40 percent depreciation of the baht. Imported inflation could not raise inflation above 10 percent in 1998.

There is clearly no wage rigidity in the Thai labor market, a feature that reduces unemployment during economic downturns. Table 3 also shows that prices adjust to wage changes with a one-year lag. Because wage adjustments are more flexible than price adjustments, the profit margin does not remain unchanged during economic fluctuations.

Figure 1 illustrates the relationship between unemployment and inflation between 1991 and 2000. The year 1998 was an abnormal year, when cost-pushed inflation, stemming from currency depreciation, led to a contraction in output and high un-

Figure 1. Trade-off between unemployment and inflation in Thailand



employment. Thus 1998 was the year when price expectations were revised upward. Excluding 1998, there seems to be evidence of a trade-off between high inflation and low unemployment in Thailand. When unemployment fell during the high-growth years of 1995 and 1996, inflation accelerated to around 6 percent. For every one-percentage-point reduction in the unemployment rate, inflation was raised by roughly 1.8 percentage points. Seen in this light, the cost of reducing unemployment in terms of rising price levels is not high. A drop of one percentage point in the unemployment rate does not cause inflation to rise by more than two percentage points.

3. Monetary policy under the "new" exchange rate system

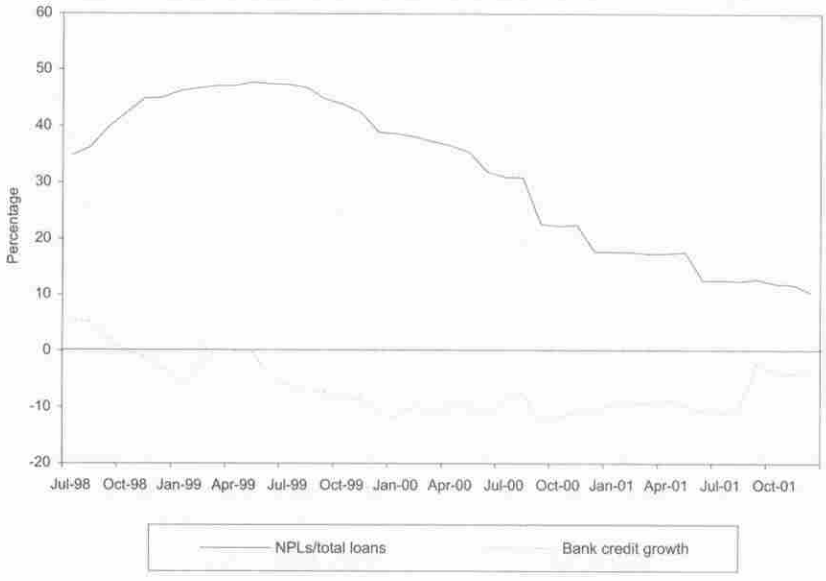
After Thailand abandoned the fixed exchange rate regime in July 1997, inflation targeting was subsequently adopted as an anchor for the price level. The Bank of Thailand sets the inflation target range to be between 1 and 3 percent. No penalty is formally stipulated by the Ministry of Finance for failing to keep inflation within the target. The Governor of the Bank of Thailand should have been held responsible for not maintaining the inflation within the range. A monetary policy committee sets the 14-day repurchase market rate. Support for the inflation-targeting strategy has been waning in Thailand, however, because output deflation and unemployment are perceived to be more serious current problems.

One problem in implementing the inflation-targeting strategy is that there is no close relationship between the short-term interest rate set by the Bank of Thailand and the long-term lending rates of commercial banks. When the U.S. federal funds rate was set at 1.75 percent, its lowest level in 40 years, the U.S. prime lending rate declined to 4.75 percent in December 2001. In contrast, when the repurchase rate in Thailand was reduced to 2 percent in February 2002, the minimum lending rate of commercial banks changed very little. Furthermore, adjustments in the repurchase market rate do not significantly affect bond yields and stock market prices. As such the monetary policy in Thailand does not work effectively through either an interest rate channel or an asset price channel. In addition, the exchange rate cannot enhance the effectiveness of monetary policy because it is not allowed to be perfectly flexible. Instead, the credit channel, through credit availability, is an important transmission mechanism of the monetary policy in Thailand.

Monetary policy can be used as a stabilizing tool, although it has a long lag effect. Blinder (1997) claims that a main source of error on the part of central banks is their failure to take into account this long lag. The economic slowdown in Thailand in 2001 could have been minimized had monetary policy been eased in early 2001, in line with the Federal Reserve Board's aggressive interest cuts. Now, in 2002, the Bank of Thailand is encouraging the expansion of bank credit through consumer credit and housing loans. If commercial banks cannot resume normal lending, a sustainable recovery will not occur in Thailand. Bank credit has been contracting continually since late 1998, even though the ratio of nonperforming loans to total loans has been falling since mid-1999 (figure 2). The process of debt restructuring and debt write-off has been slow. Weak and ineffective regulations on bankruptcy and foreclosure procedures, an inefficient legal framework, and inexperienced supervising institutions have indirectly hindered Thailand's economic recovery. Although commercial banks have raised capital successfully to offset the bad-debt write-offs, they are not willing to lend. A sharp economic rebound would be unlikely, because economic recovery requires financing to stimulate consumption and investment.

Similarly, households and firms in Thailand are not willing to borrow because of their high amounts of debt and the uncertainty about the likelihood of recovery, despite the low interest rates and greater amount of credit available to small enterprises. Structural reforms are needed in the Thai banking sector; otherwise, any recovery that occurs will be fragile. The weak balance sheets of companies and of the financial sector make Thai monetary policy less effective than expected. We cannot expect loan expansion in Thailand even if NPLs decline to less to 5 percent.

Figure 2. Nonperforming loan ratio and bank credit growth in Thailand

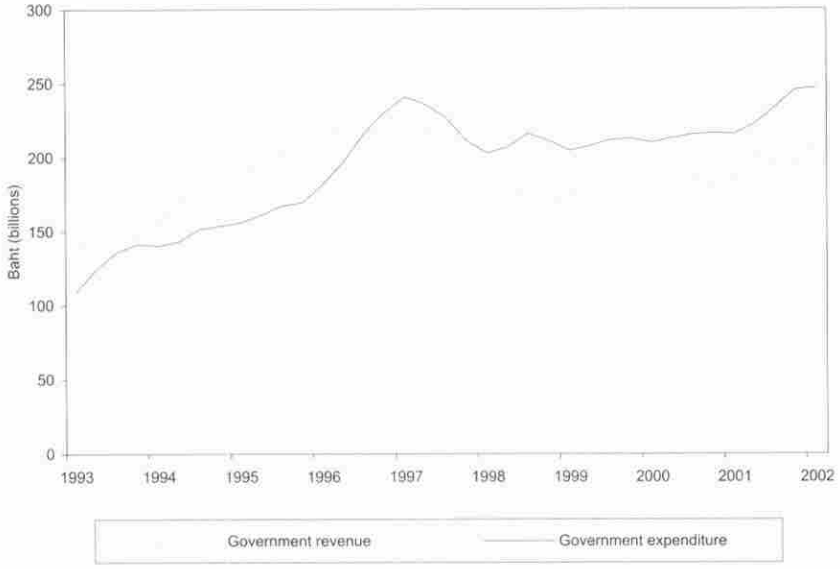


4. Fiscal policy stance

Thailand's fiscal policy in the pre-crisis era can be characterized as conservative: the budget was ex ante balanced. Figure 3 shows that during the high-growth episode from 1993 to 1996, revenues exceeded public expenditures, resulting in continued budget surplus and disappearing government bonds. Tax buoyancy was so large that whenever the GDP growth rate was above the trend growth path, revenue increased more rapidly than government spending. Because of the perennial surplus, the government was able to reduce tariffs and cut the progressive income tax rates. Given this chronic surplus, there is no doubt that the early phase of the IMF policy prescription for expenditure cuts during the economic recession was a mistake. Because of the cuts in tax rates, tax buoyancy was less powerful in the recovery period.

In 2001, the Thai government introduced an expansionary fiscal policy (table 1). Nonetheless, there is a limit to the use of expansionary fiscal policy to stimulate growth. The total pubic debt from domestic and foreign sources was 55 percent of GDP in 2001, compared with 31 percent in 1997. This higher level of public debt may inhibit the use of fiscal policy stimulus in the future.

Figure 3. Fiscal policy stance in Thailand



5. The VAR model

In this section I investigate the impacts of fiscal and monetary policy and exchange rate adjustments using a vector autoregression (VAR) analysis. To capture the short-run dynamic impacts of various macroeconomic policies, the VAR model adopts the manufacturing production index (MPI) as a proxy for real GDP. The model contains five macroeconomic variables in the following causal ordering: manufacturing output growth (Y), growth in real government spending (G), inflation rate from the consumer price index (P), change in the baht-dollar exchange rate (ER), and growth in the monetary base (MB). The estimation period is from July 1997 to September 2001. The rates of change of the monthly data are calculated on a year-to-year basis, and the lag length is six periods.

Table 4 shows the variance decomposition of the variation in the rate of change of manufacturing output and inflation, that is, the percentage of the variance attributable to each variable (they add up to 100 percent). At the end of four years, the monetary base is the most important factor behind the output response, accounting for more than a quarter of the variation. Although monetary shocks do not contribute much to inflation in the short run, they constitute the main factor influencing infla-

Table 4. Variance decomposition of Thailand's output and inflation response from VAR

		Output (Y) response					Inflation (P) response				
Period	s.e.	*Y*	*G*	*P*	*ER*	*MB*	*Y*	*G*	*P*	*ER*	*MB*
Year 1	0.035	55.68	5.95	14.55	16.34	7.48	1.60	1.18	89.95	4.30	2.97
Year 2	0.054	23.12	7.93	23.73	19.36	25.87	1.66	16.49	72.11	6.82	2.92
Year 3	0.062	21.14	11.27	22.38	15.80	29.40	2.86	20.75	56.41	10.03	9.96
Year 4	0.069	19.78	13.63	26.50	12.91	27.18	3.25	16.38	41.82	11.37	27.18

tion in the long run. This price stickiness supports the earlier conjecture that there is a short-run trade-off between inflation and unemployment. In the short run, an exchange rate depreciation has a greater impact on inflation than monetary shocks.

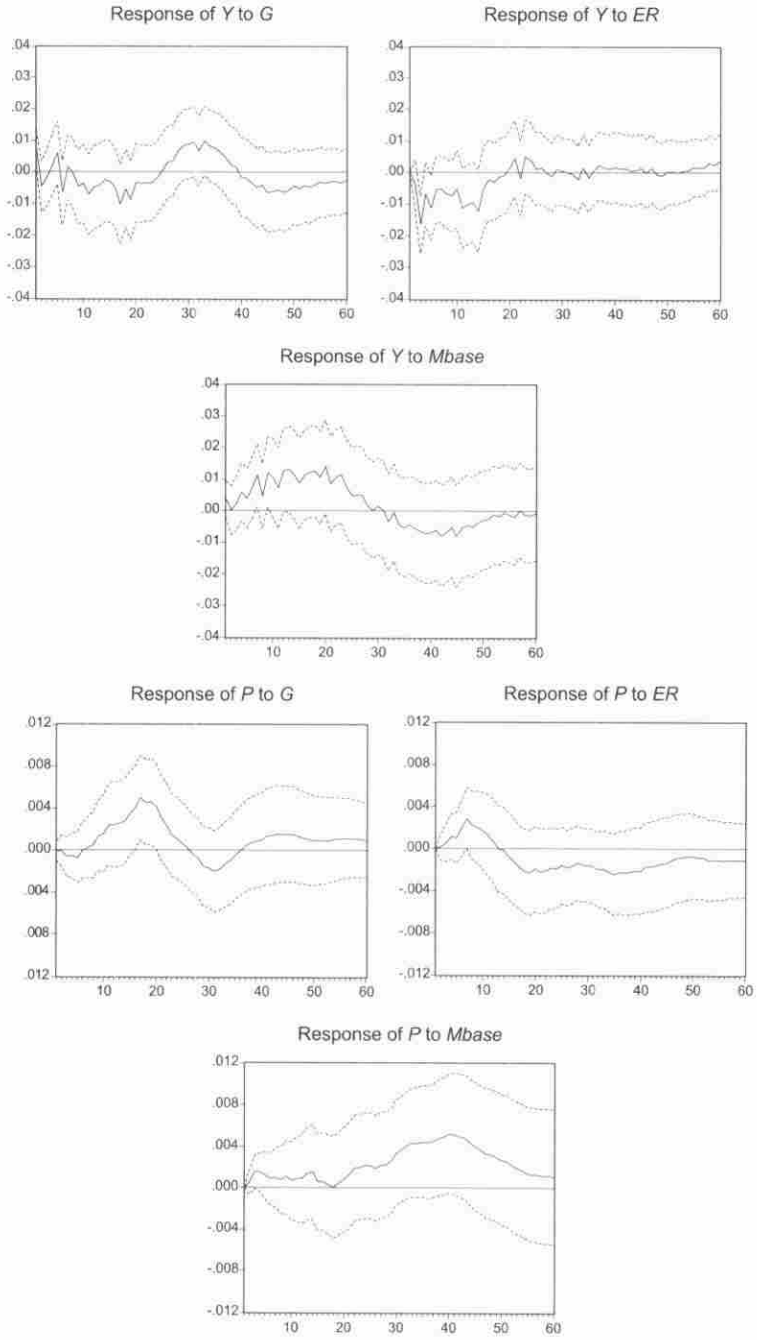
The response functions, depicted in figure 4, are consistent with the notion that monetary policy has an impact on output in the short run, and zero impact in the long run. Government spending also does not have a long-lasting expansionary impact. It may seem puzzling that in figure 4 manufacturing output responds negatively to the exchange rate depreciation. There are various reasons why devaluation can lead to output contraction (see Krugman and Taylor 1978). In the case of Thailand, devaluation has reduced the net worth of banks and firms that borrowed heavily in dollars.

6. Summary and concluding remarks

Thailand's labor market is flexible enough that wage cuts occur during recession, a feature that reduces unemployment. The price level, however, does not adjust as quickly as wage rates. Because of this inflation inertia, there is a trade-off in the short run between inflation and unemployment. Expansionary monetary policy can reduce unemployment with minimal inflation.

The interest rate hike of 100 basis points in June 2001 was a policy mistake. The Bank of Thailand should have eased its monetary policy to prevent a slowdown in 2001. Many central banks in Southeast Asian countries cut their bank rates in line with the aggressive monetary easing by the Federal Reserve Board in response to shocks and the global slowdown. Thailand's relatively high interest rate was intended to stem capital outflows. In other words, the Bank of Thailand once again tried to use the high interest rate policy to protect the baht, which has gained strength while the yen has depreciated against the dollar. The high cost of defending the currency by using high interest rates should be obvious from the painful experience of Thailand during the currency crisis. The year 2001 could have been better for Thailand had the Bank of Thailand adjusted its interest rate in line with the rate in

Figure 4. Impulse response functions of output (*Y*) and inflation (*P*)



the United States. The Bank of Thailand belatedly began reducing the repurchase market rate in early 2002.

The Thai government has revised the growth rate in 2002 upward to 4.9 percent, but this economic rebound should not distract the government from undertaking structural reforms in both real and financial sectors. The current account surplus is rapidly declining in 2002 because of the economic recovery. The proposal by a government agency to stem rising imports by imposing tariffs and nontariff barriers (within the limits of the WTO) is a dangerous move. With a realistic exchange rate and steady growth in the monetary base, even in the face of virulent external circumstances, the Thai economy can still make the best use of globalization by maintaining a moderate expansion along a sustainable growth path through employing a sensible economic policy.

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