

Effectiveness of Thailand's Macroeconomic Policy Response to the Global Financial Crisis

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This paper investigates Thailand's macroeconomic policy responses to the global financial crisis in 2009. Empirical evidence found in this paper indicates that fiscal policy is relatively less effective than monetary policy. Tax reduction is more powerful in stimulating output than government spending. Maintaining undervalued exchange rates does not create the output expansion effect. Sustained economic recovery requires growth in the world trade volume and enhanced business confidence.

Keywords: Thailand, output volatility, effectiveness of monetary and fiscal policy.

I. Introduction

Thailand did not suffer directly from the global financial crisis in 2008. The crisis indirectly affected the Thai economy through a sharp reduction of exports by 15 per cent in 2009. The production structure of the economy has changed in such a way that it has become very sensitive to fluctuation in world output. The global impact on the Thai financial sector is minimal because Thai banks had very little exposure to collateral debt obligations that originated in the U.S. sub-prime market. In the aftermath of the 1997 financial crisis, the Thai financial sector underwent upgrading of financial rules and regulations to ensure capital adequacy. The non-performing loans and risk exposure to real estate business have been kept at low levels. Bank loans did not

expand rapidly as the economic growth slowly regained its pre-shock growth path.

Despite its sound financial sector, the Thai economy has been thrown out of its high trajectory growth path since 2006. The budget deficit was 5.6 per cent of GDP in 2009, while the country's current account surplus was 6.6 per cent of GDP and consumer prices declined by 1.2 per cent. The Thai economy was subject to various shocks resulting in low growth and high volatility in output and price levels. Political instability, rather than external shocks, was the major cause of the reduction in consumption and investment a few years before the global crisis hit the Thai economy in 2009.¹

The main contribution of this paper is to examine the role of the private sector's

confidence, which influences private investment and consumption, in determining the effects of, and recovery from, the crisis. The business sentiment depends on political stability and social infrastructure such as the rule of law. To be able to respond effectively to external shocks, it is imperative that macro-economic policy must operate under institutionally strong and effective political and legal infra-structure where the rule of law prevails.

The global financial crisis led to a reduction of the world trade volume, as trade credit expansion was curtailed in developed countries. The export sector was more affected by shrinking world trade volume than other sectors which rely more on domestic sales. Naturally countries with large foreign trade shares would suffer more during the global recession, but they would rebound more sharply during the recovery.

From 2000 to 2009, domestic-oriented industries, whose domestic sales exceed 70 per cent of total output, utilized their capacity at a higher rate than exported-oriented industries. Moreover, their utilization of productive capacity experienced more stability, compared to export-oriented firms. Industries which rely on foreign demand suffered more during the slowdown of the global economy (see Figure 1). In particular, the utilization of capacity in export-oriented and ultra-export-oriented industries declined to almost 40 per cent at the trough of the recession, but they rebounded sharply, thanks to recovery in India and China that began in late 2009.²

Given the Thai economy's heavy dependence on foreign trade, the fluctuations in the world's terms of trade and its trade volume would substantially affect the performance of Thailand's exports. Crucini (1997) argues that productivity fluctuations in large industrial countries would affect growth and volatility of output in small and open developing countries. High shares of international trade in GDP and concentration of exports structure raise developing countries' risk exposure to international trade shocks (Easterly and Kraay 2000). Thailand endured high prices of crude oil in the second half of the last decade, as the country depends heavily on imported oil.

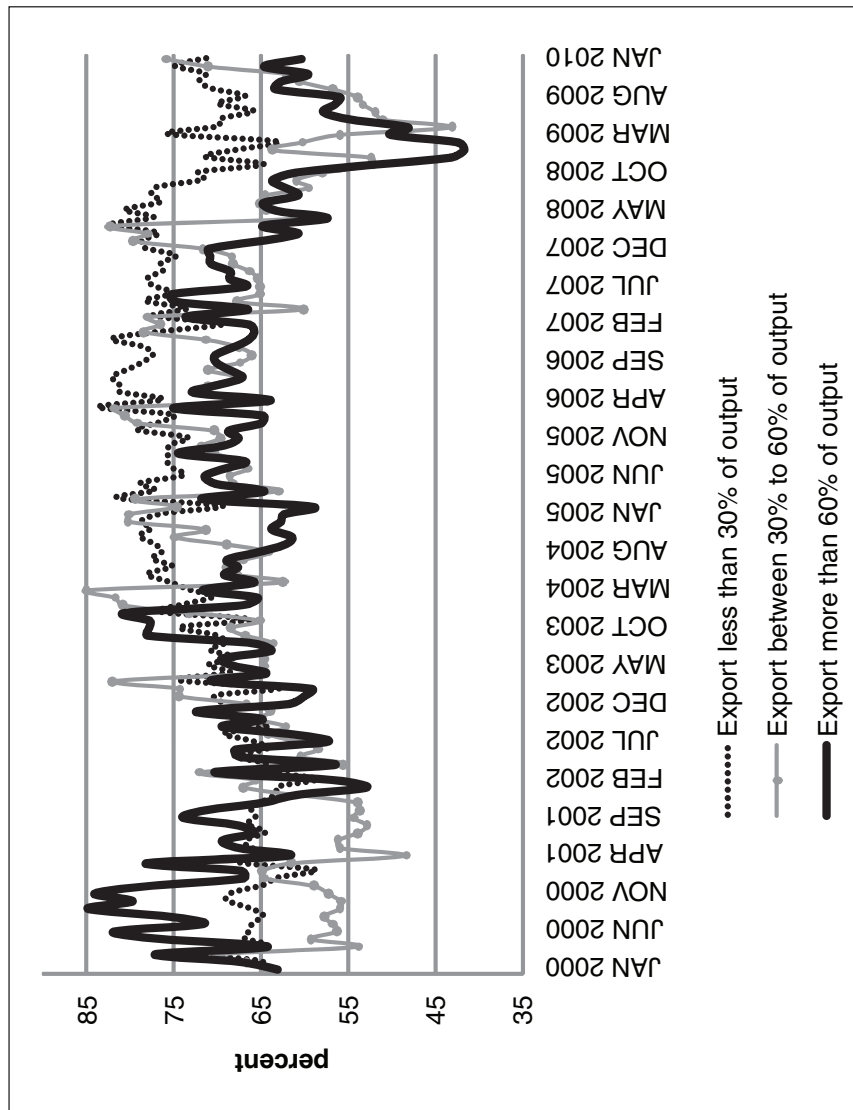
Nevertheless, high commodity export prices of rice and rubber partially offset the increased oil price. As a result, the terms of trade faced by Thailand between 2000 and 2009 did not change substantially. Thus, the volatility of demand for exports came from fluctuations in the world trade volume, since more than 80 per cent of Thailand's exports are manufactured products. Concentration on the exports that are highly sensitive to the world business cycle contributed to variations in exports and output growth.

Since imported capital goods generate high productive capacity, the rising trend of the importation of capital goods indicates the long-term growth of the economy. Imported capital goods and domestic machinery sales are included in the index of private investment constructed by the Bank of Thailand. The Bank of Thailand also employs value added taxes and domestic commercial car sales in their construction of the index of private consumption. Because value added taxes have remained unchanged at 7 per cent between 2000 and 2009, value added tax revenue can be used as a proxy for retail sales. A rise in domestic commercial car sales indicates consumer confidence as people in rural areas increase their purchase of durable goods. A collapse of commercial car sales implies a sharp reduction in purchasing power of the poor. Because marginal propensity to consume is higher for poor people in rural areas than the propensity to consume of people in urban areas, it is important that an economic stimulus focuses on incomes of those who are sure spenders.

These indexes tracked the 2001 world recession and the slowdown of the Thai economy between 2006 and 2007. Figure 2 clearly demonstrates that consumption and investment declined substantially in 2009. A significant rebound of imported capital goods and domestic machinery sales can be observed in the second half of 2009. It is imperative to understand whether the recovery is sustainable and to what extent macroeconomic policy responses to world trade volume shocks are responsible for the recovery.

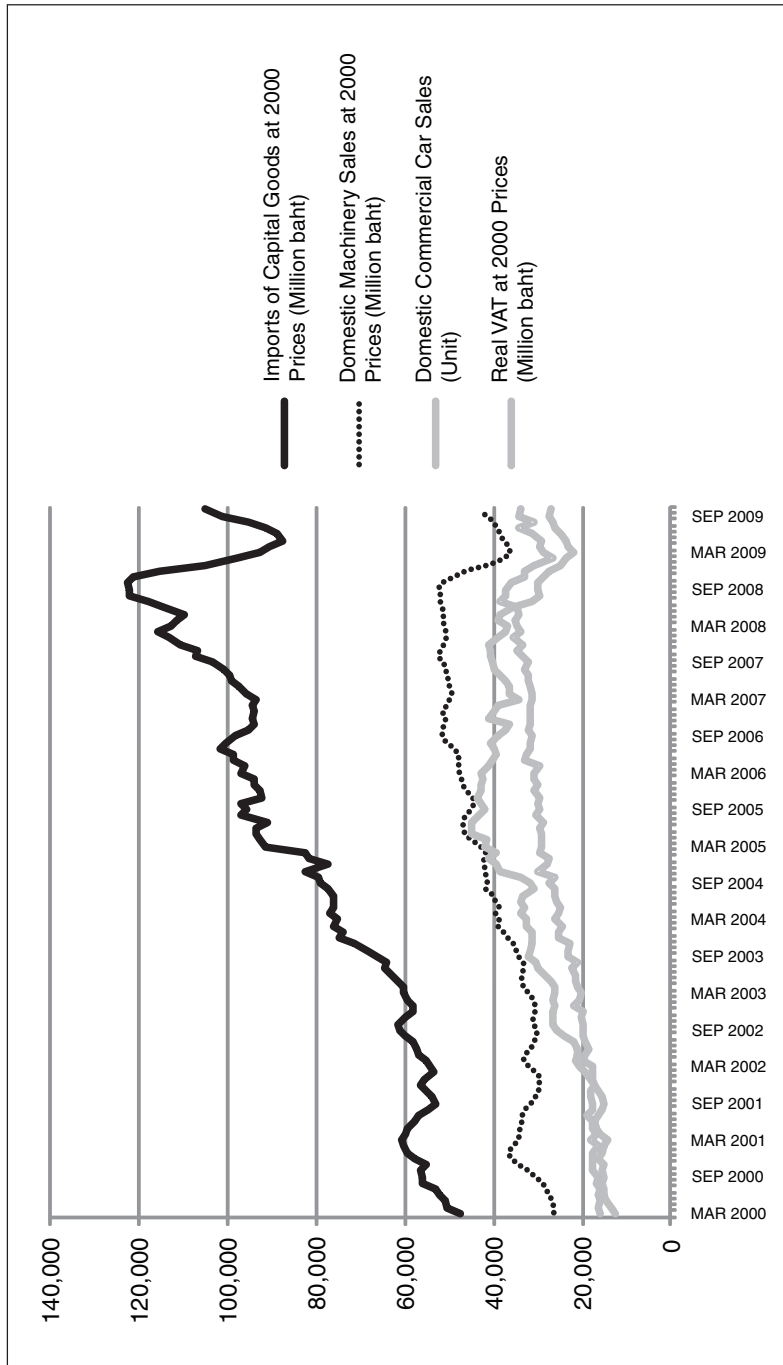
The rest of the paper is organized as follows: Section II examines the relationship between

FIGURE 1
Utilization of Manufacturing Capacity
(In percentages)



SOURCE: Bank of Thailand.

FIGURE 2
Recession and Recovery



SOURCE: Bank of Thailand.

output volatility, growth, and the role of business sentiment. Sector III discusses the impact of fiscal and monetary policy responses to various shocks by utilizing a Vector Autoregressive Model. Sector IV provides concluding remarks.

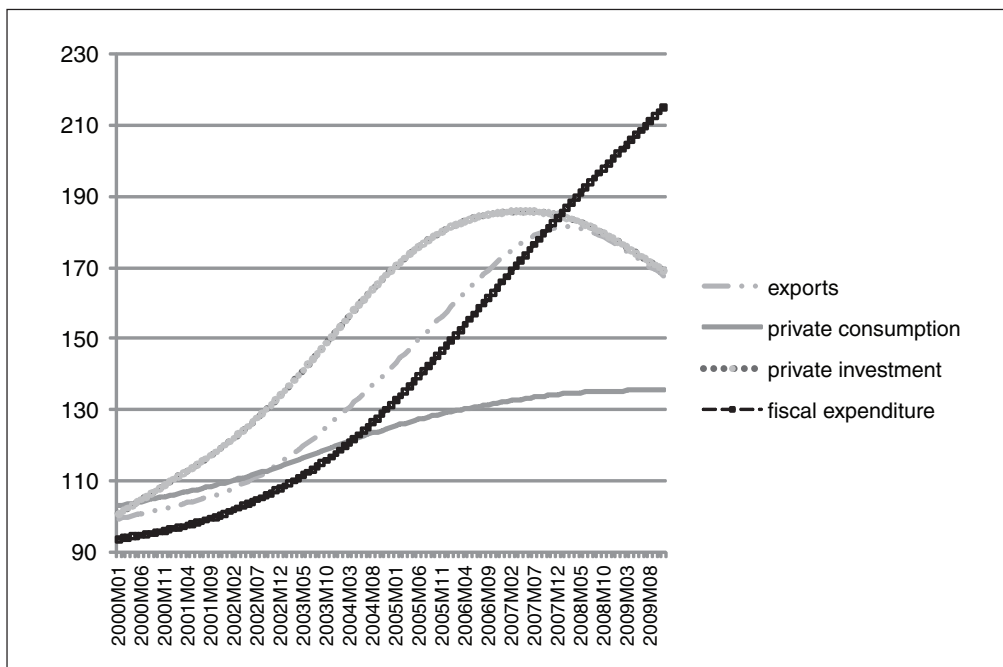
II. Growth, Volatility and Business Sentiment

Fluctuations of GDP components directly affect the volatility of output, which would have a depressing effect on growth in the long run. The long-term paths of aggregate demand components are shown in Figure 3 which illustrates indexes of private consumption, investment, government spending and exports. The year 2000 was chosen as a benchmark at the index value of 100 for all components. The long-term trend is represented by the Hodrick-Prescott trend, which removes cyclical components from actual values of the series.

Investment peaked in 2006 and started a long-term declining trend since then. Growth remained positive during 2006–08 because exports continued increasing until the impact of the global slowdown was felt in 2008.

While consumption began to slow down after 2006, public spending was on the rising trend, suggesting a tendency for the larger role of government spending in GDP, but it does not necessarily imply more effectiveness in the contribution to growth and price stability. We need to examine whether public spending substitutes or complements private expenditures. Furthermore, if the long-term increasing trend of public spending continues despite the rebound in private spending and exports, rising public debt would ensue a problem of macroeconomic instability in the future. According to Persson (2002) and Shi and Svensson (2006), when taxes and fiscal ex-

FIGURE 3
Long-term Paths of Aggregate Demand Components



SOURCE: Hodrick-Prescott Trend values obtained from data provided by the Bank of Thailand.

penditure are affected by political business cycles before the time of an election, the resulting volatility of fiscal variables can create a negative impact on output fluctuations and macroeconomic stability. Uninformed and irrational voters would be easily swayed by the short-run impact of populism policy and ignore the long-term implication of budget deficit and accumulate public debt.

The year 2006 witnessed a fundamental change in Thailand's politics, which has a profound impact on the previously stable economy. The military coup that took place in September 2006 violated the rule of law and weakened democratic institutions. According to Acemoglu and Robinson (2001), these kinds of political transformation through military coups, revolution, and civil war cycles involve high risk exposure to output and consumption volatility that would lead to serious economic crises. Table 1 indicates that the Thai economy experienced increasing levels of risk and uncertainties from the demand side.

During the period 2000–09, exports were the most volatile component of aggregate demand. Table 1 shows that the standard deviation of the cyclical movement in exports in the period 2006–09 increased sharply — almost tripled the level in the period 2000–05. Export instability stemmed from structural changes of production patterns that have become more heavily reliant on external demand.

Investment instability can be attributed to domestic political uncertainty that does not provide favourable investment climates. Because of its irreversibility, large investment projects can

be delayed when investors are facing risk and uncertainty (Pindyck 1991). The standard deviation of cyclical investment increased from 3.9 in the period 2000–05 to 7.4 in the period 2006–09. During the same corresponding period, the standard deviation of consumption increased from 1.4 to 2.9. Usually private consumption does not change abruptly due to its consumption-smoothing behaviour when households experience income shortfall. The increased consumption volatility bodes well for the turmoil period after 2006. A higher degree of volatility of fiscal spending can also be observed in the second period. All aggregate demand components exhibit greater instability after the military coup in 2006.

Standard deviations reported in Table 2 are obtained from cyclical components of monthly manufacturing production and business sentiment indexes provided by the Bank of Thailand. Inflation rate is calculated on a year-on-year basis of the monthly consumer price index.

As a result of the increased volatility in private spending and exports in the period 2006–09, output fluctuated more virulently. The standard deviation of the cyclical component of output increased from 2.9 to 11.3 (Table 2). Ramey and Ramey (1995) report the evidence indicating a negative correlation between output volatility and economic growth in their cross-country study. In the case of Thailand, average GDP growth declined from 5.1 per cent to 2.4 per cent during the same corresponding period. Similarly, the business sentiment index shows increasing variations. The standard deviation of inflation rate

TABLE 1
Increasing Volatility of Aggregate Demand
(Standard deviation of cyclical components)

	<i>Fiscal spending</i>	<i>Private investment</i>	<i>Exports</i>	<i>Private Consumption</i>
2000–05	2.18	3.92	4.58	1.42
2006–09	3.42	7.4	13.45	2.86

SOURCE: Bank of Thailand.

TABLE 2
Volatility in Output, Price, and
Business Confidence
(Measured by standard deviation)

	<i>Output</i>	<i>Business sentiment index</i>	<i>Inflation</i>
2000–05	2.96	2.42	1.43
2006–09	11.3	3.44	3.06

SOURCE: Bank of Thailand.

during the period 2006–09 also doubled its level in the early 2000.

Evidence from other countries point out that high inflation volatility is associated with political instability, ideological polarization, and political fragmentation (Aisen and Veiga 2008; and Ahmed and Suardi 2009). Nevertheless, increased inflation volatility can be attributed to fluctuations in the crude oil prices and exchange rate volatility. It is possible that weak institutions can reduce the credibility of the central bank's ability to maintain price stability (Huang and Wei 2006). The Bank of Thailand has been pursuing inflation targeting since 2000, and the monetary policy has not changed its course from the goal of price stability. The political turmoil has not impaired the stabilization role of monetary policy in such a way that price stability is threatened. On the other hand, the political upheaval and unstable governments have increased risk and uncertainty, which affect output volatility.

Macroeconomic variables often move together over time. As Figure 3 shows, while government spending increased substantially between 2000 and 2009, consumption followed a moderate long-term growth path. Welfare of the nations depends on consumption growth, but the increase in consumption volatility reduces social welfare, as consumers are subject to risk and uncertainty. To avoid spurious results from analysing macro magnitudes, we need to examine the long run relationship between cyclical components of

private and public expenditures in response to cyclical movements of income levels.

Table 3 provides the results obtained from cointegration tests, which indicate the existence of the long-run relationship between output and consumption, investment, and fiscal expenditure. The monthly data from 2000 to 2009 are employed under this analysis. The insignificant coefficient of consumption indicates that the cyclical output change does not lead to a significant change in cyclical consumption. In other words, a change in transitory income would not lead to a transitory change in consumption. The implication of the finding is that a once-and-for-all increase in government income transfer would not lead to increased consumption. Only a permanent increase in income would lead to an increase in permanent consumption. To increase permanent income, households must revise their expectation upwards and should be worried less about their job prospects. Thus, government spending must be directed at employment generation as much as possible to enhance domestic spending.

The estimated coefficient of investment expenditures is high, suggesting that investment spending responds vigorously to changes in output. Thus investment can be a destabilizing factor during the boom and bust because investment tends to rise more rapidly than output

TABLE 3
Long-run Relationship between Output and
Aggregate Demand

	<i>Cointegrating coefficients</i>	<i>Standard error</i>
Consumption	–0.041	0.059
Investment	4.96**	1.05
Fiscal expenditure	1.08**	0.23

NOTE: ** 99 per cent level of significance.

SOURCE: Normalized coefficients obtained from co-integration relationships between each cyclical component of aggregate demand and cyclical output level.

expansion and collapse more dramatically than the decline in output. To be able to fine tune private spending, appropriate monetary policy is needed to curb excessive investment. Nevertheless, during recession, interest rate cuts may not sufficiently provide incentives for investors, who need to be reassured of the imminent recovery.

The estimated cointegrating coefficient of fiscal spending with respect to output is positive and significant statistically. Moreover, it is greater than unity. This coefficient can be interpreted as a measurement of fiscal policy procyclicality (Fatas and Mihov 2003). The sign and size of the estimated coefficient indicate that government spending is procyclical and responds more proportionately than output fluctuations. In contrast to the conservative fiscal policy in the 1990s, the Thai fiscal policy has become more expansionary, thereby offsetting the role of an automatic stabilizer of tax revenue. Furceri (2007) provides evidence that procyclical fiscal spending would exacerbate output volatility, which in turn exerts a negative impact on long-term growth. As the public debt reaches a critical level, the government, to curtail the budget deficit, must reverse its spending before it is too late.

Baxter and Crucini (1995) provide evidence that output (consumption) variation is positively (negatively) correlated with financial integration. Bank of Thailand imposed capital controls for capital inflows for fifteen months between 2007 and early 2008, implying a lesser degree of financial integration. In addition to the government's massive fiscal stimulus, excess liquidity in the banking system and low interest rates enabled households to borrow to smooth out their consumption paths. The increased output volatility must arise from factors other than financial integration.

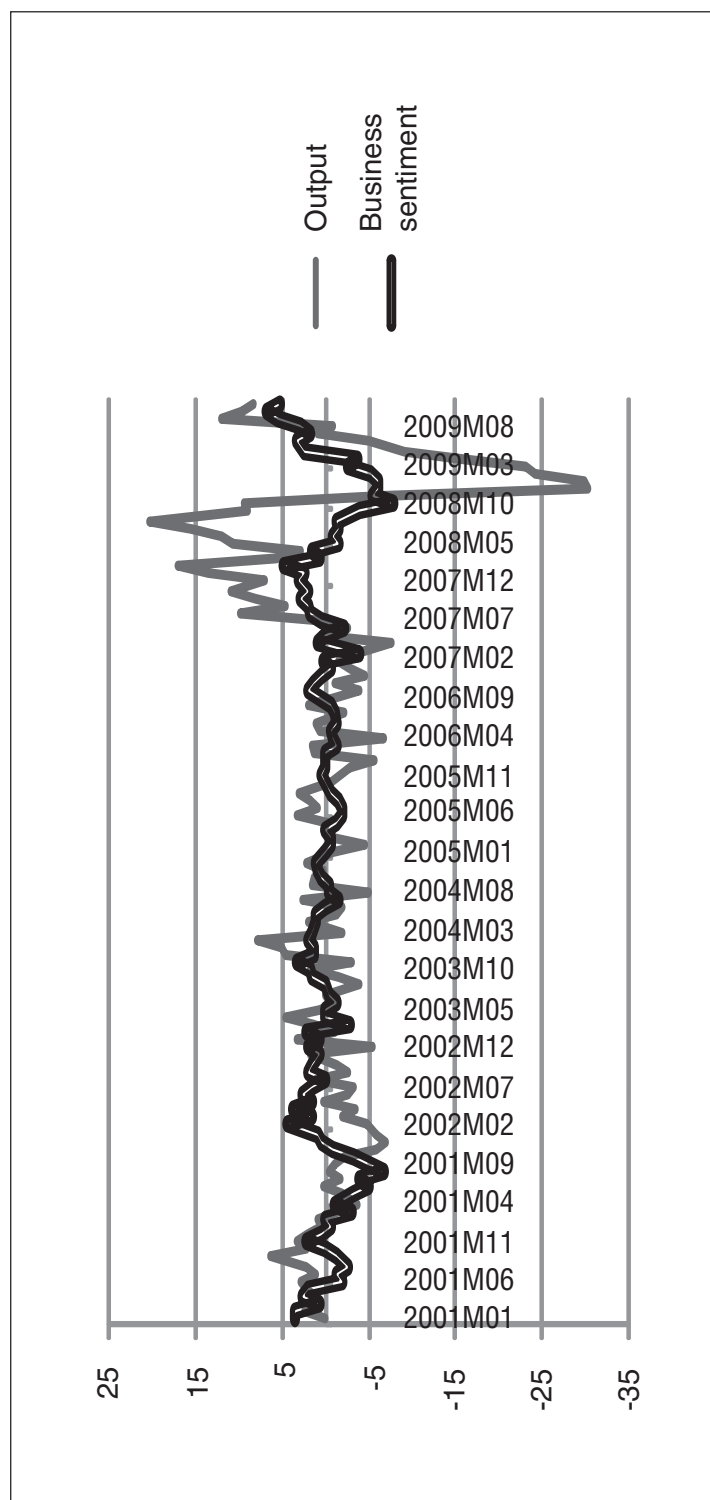
The period 2006–09 was interesting in the sense that the Thai economy was subject to a severe test of its resilience. The financial and currency crises in 1997 led to massive currency depreciation and widespread failure of financial institutions. After experiencing a brief debt-deflation episode in 1998, the country was able to rebound and restore

its pre-shock growth per capita income within five years.³ During that period, confidence in the economy was restored as exports rebounded sharply in response to currency depreciation. On the contrary, in 2009 there was excess liquidity in the banking system, and the baht gained its strength due to the weakening value of the U.S. dollar. But what made the 2009 recession episode so different from the previous 1998 recession was the poor business sentiments hampered by both internal and external conditions.

Figure 4 illustrates output fluctuations and changing business sentiments reflecting risk and uncertainty that are both causes of and effects from shocks in consumption and investment expenditures. The fiscal stimulus package was carried out in the belief that the faster the government can spend the budget, the faster business and consumer confidence can be improved. Figure 5 confirms that there was a sharp rebound in business sentiments in all sectors in the second half of 2009. But it is debatable whether the improved sentiment stemmed from improving exports, private or public spending.

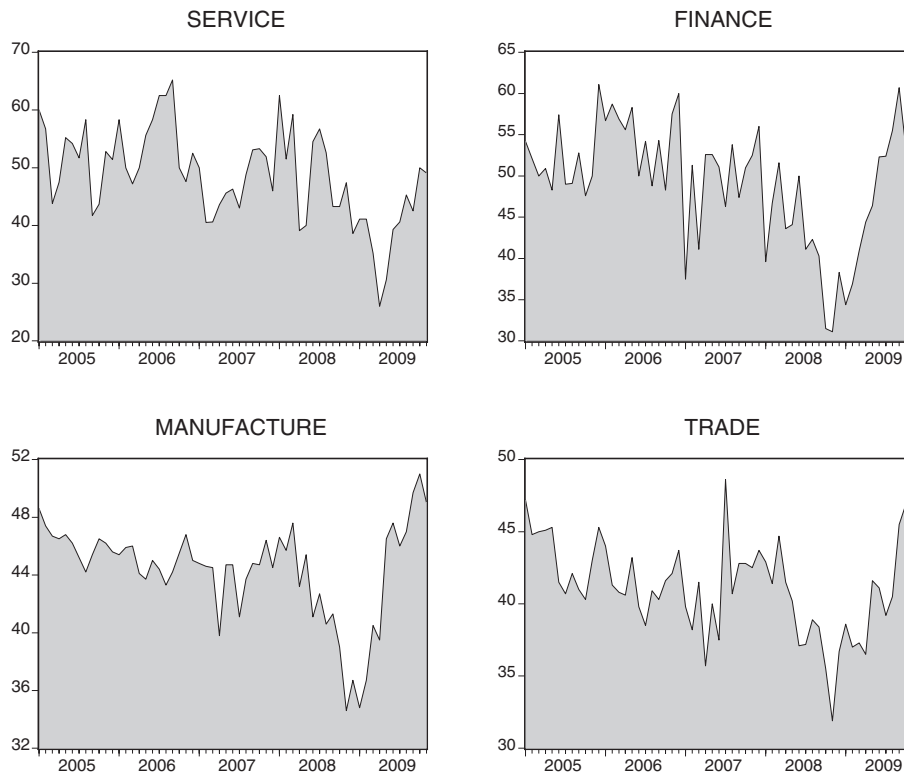
Business sentiments change rapidly with new arrivals of economic data. Pessimistic consumers and investors are likely to postpone their purchase of capital and durable goods. The global financial crisis led to the cautious lending behaviour of domestic financial institutions. As the unwarranted fear of the U.S. sub-prime crisis unfolded, business sentiments in the financial sector improved throughout 2009. The sentiments in the service sector were affected badly by the coup in 2006, the airport shutdown in late 2008, and the political riot in April 2009. However, the political situation became more stable and returned to normalcy in the second half of 2009. Business sentiments improved in all sectors, signalling a rebound in the economy. Exports in December 2009 registered a positive growth rate, on the year-on-year basis, for the first time since August 2008. Furthermore, the increasing level of capacity utilization in the manufacturing sector and resumed consumer spending on durable goods helped revise consumer confidence, further strengthening investors' confidence.

FIGURE 4
Output Variation and Business Uncertainty



SOURCE: Cyclical components of manufacturing output and business sentiment indexes.

FIGURE 5
Fluctuations of Business Sentiments



SOURCE: Bank of Thailand.

III. Impact of Policy Responses

The policy interest rate of the Bank of Thailand has been reduced in line with the federal funds rate. Nevertheless, there is a limit for the central bank to lower the interest rate since it might lead to an excessive credit expansion that would result in property bubbles. It is anticipated that the Bank of Thailand might raise the key policy rate in the second half of 2010 to cool down inflationary expectations and prevent excessive speculation in the property sector.

The expansionary impact of easy monetary policy will be complementary to a fiscal stimulus. Many governments attempt to stimulate domestic demand by running huge budget deficits. How the

government employs stimulus packages is as important as the size of the deficit. The latter would have a long-term impact on public debt and subject to a spending reversal in the future.

The long-term growth of the economy depends on the structure of public spending: current versus capital spending. In the fiscal year 2010, public spending on capital investment declined to 12.5 per cent of total budget.⁴ Thus, a large part of the economic stimulus would be current spending which has little effect on long-term growth. The rationale for boosting current spending is that the government needs to speed up spending as fast as possible to revive private consumption. This can be done through income transfer in the form of a

once-and-for-all handout to the poor. In addition, some budget items are for social safety nets such as monthly income for the elderly and subsidies on public utilities. These items can be deemed as pork-barrel spending in order to buy votes as the stability of the coalition government is in question. Also, there is a high possibility of having an early general election. A large proportion of the budget was allocated to military procurement, which is necessary for national security and the stability of the military-backed government.⁵ The government proposed expenditure of 2.07 trillion baht for fiscal year 2011, an increase of 21 per cent from the 1.7 per cent trillion baht on the previous fiscal year. The investment budget would be raised to 16.5 per cent of total budget. Although this is the right direction to promote long-term growth, it is still far below the minimum requirement of 25 per cent share as stipulated by the rules of fiscal sustainability.

The strength of the baht against the U.S. dollar has forced the Bank of Thailand to intervene heavily in the foreign exchange market. The level of international reserves exceeded US\$100 billion at the end of 2009. The fear of adverse impacts on exports associated with the appreciating baht still haunts policy-makers. The intervention of the Bank of Thailand in the baht/dollar exchange rate indirectly affects the nominal effective exchange rate of the baht. The real effective exchange rate appreciates less than the nominal effective exchange rate when the Bank of Thailand can keep inflation lower than Thailand's major trading partners.

Policy impacts on output recovery can be examined by utilizing impulse response functions from a vector autoregressive model, which allow dynamic impacts and feedback effects between instruments and macroeconomic variables. The model comprises nine variables: output, aggregate demand components, and policy instruments. GDP or output levels are approximated by the manufacturing production index. The aggregate demand expenditure is represented by private consumption and private investment indexes, exports, and government spending. The model includes, in addition to public spending, tax

revenue, the key policy interest rate (botrate), and the real effective exchange rate (REER). Furthermore, the VAR model utilizes the business sentiment index to capture the impact of changing business environment on private sector's decisions to invest and to consume. Monthly data from 2000 to 2009 are employed in the VAR model. The explanatory variables are lagged endogenous variables with the lag length up to eight months. The lag length is determined by Akaike Information Criterion. The long lag ensures that there is no serial correlation in the model.

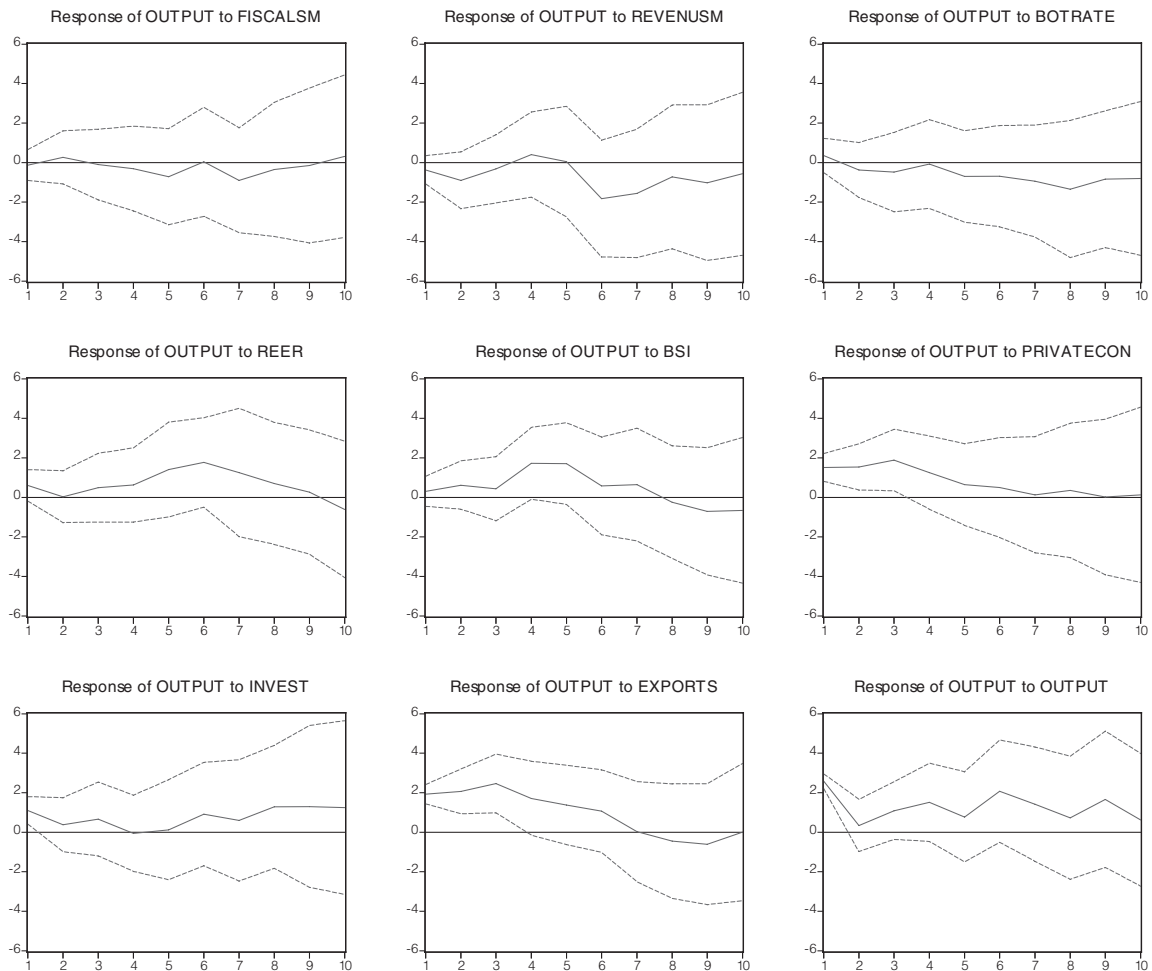
As Figure 6 illustrates, changes in exports, compared to all components of aggregate demand, exerted the strongest impact on output. Thus, it is not surprising that the export collapse of 15 per cent led to a GDP contraction by 3 per cent in 2009. The impulse responses of output to shocks in investment and consumption reveal expected results. The expansionary impact of private consumption is stronger than investment, while their expansionary effects die off gradually after ten months. Investment expenditures involve imported capital goods, causing a leakage of domestic demand. Thus, the multiplier effect of increased consumption is stronger than investment in the medium term.

If the monetary policy stance is expansionary, it would be able to mitigate the adverse impact of the global slowdown on Thailand's exports. As Figure 6 shows, a reduction in the central bank's lending rate can stimulate domestic demand to offset the reduced exports caused by global recession. Similarly, an increase in the Bank of Thailand's key policy rate can curb rising domestic demand and contain inflationary pressure.

In this VAR model, both fiscal spending (FISCALSM) and tax revenues (REVENUSM) are seasonally adjusted to avoid seasonal spending patterns in the fiscal year. The impulse response of output from a tax cut is expansionary, while the public spending shows an insignificant gain in output expansions or even causes an output contraction. Private consumption responds positively to current output, exports, and investment. Consumer confidence can be considered as a proxy for permanent income. An enhancement of

FIGURE 6
Output Responses to Various Shocks

Response to Cholesky One S.D. Innovations ± 2 S.E.



SOURCE: Impulse response function obtained from the VAR model.

consumer confidence leads to a jump in consumption expenditure, exerting a stronger and faster impact than an increase in current output. As expected, consumption is adversely affected by an increase in tax revenue. On the other hand, consumption increased temporarily and marginally in response to the fiscal spending stimulus and declined after five months. The temporary

consumption-enhancing effect can also be attributed to the public spending impact on the relaxation of liquidity constraints among low income people. The longer-term negative impact of the fiscal stimulus can be attributed to subsequent inflationary pressure and consumers' restraint on spending in anticipation of future tax liabilities. In addition, if public spending

substitutes rather than complements both private consumption and investment, the fiscal stimulus can have an infinitesimal expansionary impact on output.

To stimulate a recovery, expansionary fiscal policy should be conducted by tax reduction rather than increasing public expenditures which require specific types of public spending that are complementary to private spending expenditures. Many items of the Thai government's stimulus packages are temporary transfer payments and expenditures on social safety nets, which are simply substitutes for private consumption expenditures. As these spending are temporary in nature, they would phase out after the economic recovery. Thus, the government stimuli are akin to a positive transitory income, which would have no impact on consumption.

There is a puzzling expansionary effect of real exchange rate appreciation on output. If this is the case, the real exchange rate appreciation would not slow down growth potential. The answer to this puzzle lies in the impact of REER on all components of aggregate demand, not just exports. Figure 7 clearly shows that REER appreciation leads to an increase in private investment, as the strengthening of the baht reduces the cost of imported capital goods. An important policy implication that emerges from this exercise is that there is a trade-off in keeping the exchange rate stable. If the exchange rate is kept undervalued to maintain export competitiveness, it would slow down capital accumulation. Allowing exchange rates to move by market forces would be more appropriate to foster long-term growth through enhancing capital accumulation rather than maintaining weak currencies to stimulate exports. Note that exchange rate changes have the substitution effect in export demand, but the substitution effect is not as powerful as the income effect arising from changing the world output level. Through increasing output capacity, exports can be flexible and adjust rapidly to changing demand conditions to take advantage of a surge in the demand for exports after the world trade volume resumes its normal expansion path.

The impulse response from improving business confidence indicates that the role of expectations is important, because improved business sentiments can enhance private consumption and investment spending (Figure 7). Since consumption depends on permanent income and investment's decisions depend on firms' expected income streams, any incident that destroys public confidence is likely to slow down a sustained recovery of private spending. The political unrest and uncertainties of policy implementation incur risk premium to investors. In September 2009, the Administrative Court ordered investment operations at Map Ta Phut suspended after the environment groups charged state agencies with the failure to comply with requirement of the 2007 constitution.⁶ The outlook for industrial development is bleak if there is further delay in the process of conducting the environment and health impacts. Already some Japanese investors have warned the Thai government that they would reallocate their foreign direct investment to some other countries if the government cannot expediently solve the problem of Map Ta Phut.

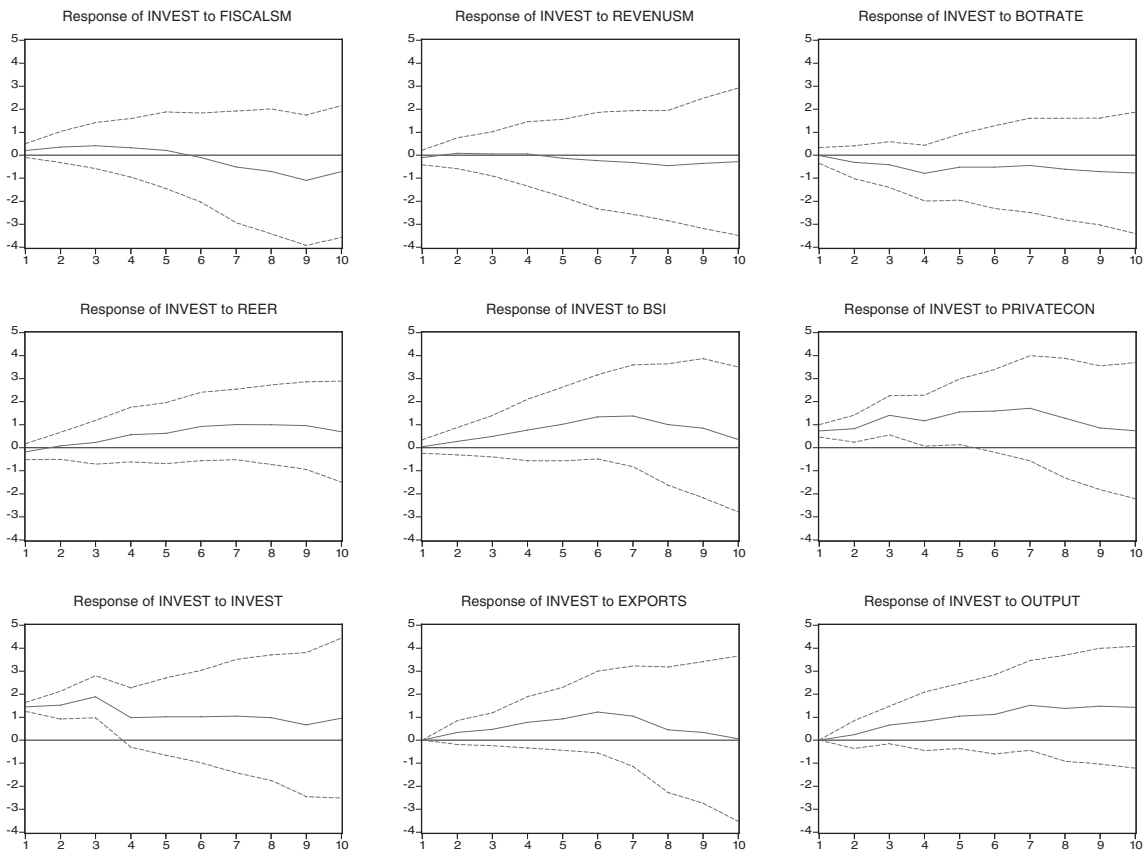
IV. Concluding Remarks

When consumption and investment spending are constrained by poor business sentiment and weak consumer confidence, the recovery must come from the rebound of export demand. Thus, a sustainable recovery depends on the resumption of world trade expansion and regained consumer confidence. The economic outcome of policy responses to external shocks is influenced by the quality of institutions.⁷ The effectiveness of policy responses depends on the government's ability to maintain the rule of law, accountability, human rights, and effective legal infrastructure. Maintaining the rule of law implies predictable outcomes from court ruling of legal disputes. Investors can proceed with less concern about risk and uncertainty that may arise from policy inconsistency.

If those policy stimuli can be used under a favourable investment environment, Thailand can recover quickly from the global financial crisis

FIGURE 7
Impact on Private Investment of Various Shocks

Response to Cholesky One S.D. Innovations ± 2 S.E.



SOURCE: Impulse response functions obtained from the VAR model.

and would have been subject to lesser adverse consequences of the global recession. Thailand has sufficient policy instruments to respond to fluctuations in the global export demand, but those policy instruments must be selectively chosen to ensure maximum impacts on stabilization. The paper provides evidence supporting the view that fiscal spending may not be the best policy response. A tax cut is shown to be more expansionary than income transfer through current

spending of the government. Monetary policy remains effective despite the high degree of capital convertibility because its impact on the exchange rate intensifies the initial impact of monetary policy on the aggregate demand. Currency appreciation does not necessarily lead to output contraction. These macroeconomic policies would be more powerful with accompanying measures to boost consumer confidence and business sentiment to nourish the animal spirits of investors.

NOTES

1. For a detailed analysis of the contribution to growth of domestic demand and net exports, see Nidhiprabha (2009).
2. In November 2009, industrial production expanded 8.9 per cent in Thailand, and 11.7 per cent in India on the year-on-year basis, while industrial output expanded in December 2009 by 18.5 per cent and 14.4 per cent in China and Singapore, respectively.
3. See Nidhiprabha (1998) for further discussion on contractionary effect of devaluation and the analysis of the 1998 debt-deflation.
4. Fiscal Policy Office has established a rule of fiscal sustainability by stipulating that the share of public investment should not be lower than 25 per cent of total budget.
5. In January 2010, the government approved the purchase of another six Gripen multi-purposed fighter jets from Sweden, in addition to the six previously purchased after the military coup in 2006. The share of defence budget has increased dramatically at the expense of economic services and agriculture.
6. Section 67 of the 2007 constitution requires that all investment projects must undergo through environmental and health impact assessments before actual investment can take place.
7. Despite repeated denials by the military, the rumour of a coup resurfaced again in January 2010, reiterating the fragility of Thailand's democracy.

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