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Asia Pacific

# Thailand Macro View

## Strengthening Baht Not a Macro Risk

**Jun Trinidad**
+63-2-894-7270
jun.trinidad@citi.com

- **Downplay the strong baht effects** — We argue that the strides made by the local economy since the 1997-98 crisis have led to more resilience to downside risks from a strong baht. We do not see strong correlation between changes in the series of manufactured exports and different exchange rate measures, particularly in more recent years. In our regression analysis, we discover statistically significant effects of real investments ex-inv, unit labor costs and trade openness indicators on manufactured export volumes. A 1% rise in real investments can result in a potential 0.817% gain in export volume. Potential for export volumes to decline (increase) by 0.25% for a 1% increase (decrease) in unit labor costs. On the basis of these empirical results, we argue that enhancing the investment climate through more infra spending and improvements that strengthen technical and market efficiencies bodes well for exports and the economy in general, while compensating for the risk of a strong baht.

- **More arguments** — We find quarterly changes in real investments tracking export manufacturing volumes closely, verifying the regression outcome. Breakdown of mfg exports reveals volume changes dictated $ value, leaving out any price factor influence – supposedly the conduit of exchange rate effects. Weak/strong exchange rates in Thailand (or in other Asian exJ countries hosting Japanese companies) were not regarded as a major business issue in JETRO surveys. Prevailing macro conditions do not simulate pre- nor post-1997-98 Asian financial crisis (AFC) such that the exchange rate should be a key determinant of favorable macro outcomes.

- **Economy has come a long way since 1997-98 AFC** — Since macro conditions are materially different from those in the 1997-98 AFC, maintaining competitiveness is not just a case of a weak baht – it is about having an optimal policy framework and infrastructure that can attract more investments and expand supply capacity to cater to global and onshore markets. According to the Global Competitiveness Report, the country faces challenges in key elements such as higher education, labor market efficiency, institutions, and technological readiness that can hasten Thailand's ascent to an 'efficiency-driven' economy. Sustaining existing structural economic conditions while tackling efficiency challenges will help the country cope with a strong baht over time.

- **Market implications** — With risk-off sentiment in today's trading coupled with verbal pressure from the Finance Minister on his preference for weak local currency, the baht appears to be consolidating at 29.22 – not too far from our expectation of 29.5 in March. We remain positive on fundamentals, likely driven by investments. We also note less BoT resistance to stronger baht in current macro environment with added risk of strong portfolio flows. BoT and markets may also take cues from whether Parliament approves the government's MT public investment program this month. Delays caused by increased political noise from legal charges faced by PM Yingluck may dim the prospects for baht reaching 29. Towards June, we expect the baht to retreat to the 29.80 range on stronger USD/Asia, though fundamental story should remain intact.

**See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.**

# Strengthening Baht Not a Macro Risk

With the baht probing 29 and leading the regional currencies since start of the year (YTD +4.9%), many have raised concerns about the strong baht impact on exports and real economy when persistent firm challenges to global recovery prospects. The strong baht appeared to shake off the 'risk-off' sentiment (Cyprus event risk) recently while given a surprising lift from Fitch's credit rating upgrade[1]. Wire reports also warned of possible macro prudential responses by the BoT to reverse the strong baht trend, if carried too far.

Familiar fears of the economic downside arising from the strong baht trend centered on the loss of export competitiveness. For Thailand, this feeds through to manufacturing (45% of GDP) that can stunt growth prospects as conventional wisdom dictates. At the macro level, we present evidence that all these fears arising from a strong baht may be exaggerated:

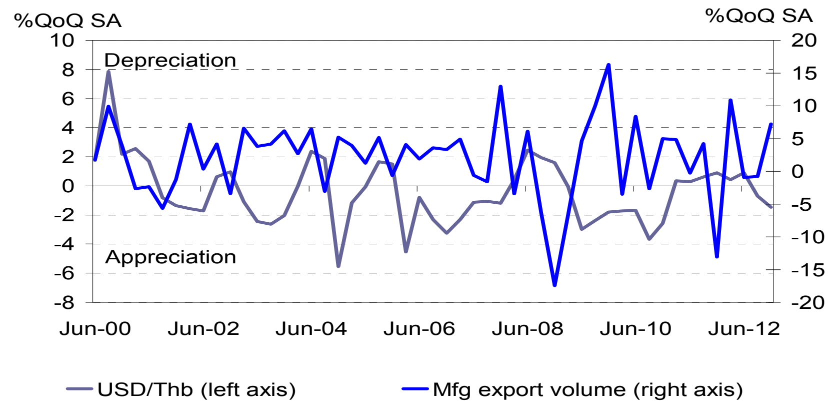
- **Evidence of diminished correlation between export volume and the exchange rate.** Plot of the seasonally adjusted export volume of manufactured products with seasonally adjusted exchange rate doesn't show any direct correlation. Recently quarterly export volume picked up while the exchange rate was strengthening. This argues for the case of exporters selling heavily during the period of strong export demand that puts pressure on the baht to appreciate. Tendency for the baht to weaken when exports are not doing well (no heavy US dollar sellers). Key implication is there are other drivers to export volume such as external demand that can lead to an export volume not in sync with the baht.

  We also did the direction of causality test between the same set of variables. Over the sample period 1Q00 to 4Q12, we obtained a probability estimate that over 90% of the time the quarterly change in the baht 'granger causes' the quarterly change in export volume. This strongly suggests a baht that has significant influence over export volume that contrasted sharply with our intuitive explanation of why the chart of the quarterly changes in export volume doesn't track changes in the baht.

  However if we shorten the sample period down to 1Q09 to 4Q12, we obtain a less robust probability estimate that 57% of time the exchange rate changes have a material impact on export volume. From over 90% to less than 60% of the time, the probability estimates under the direction of causality test, strongly suggests export volume may be responding to macro determinants other than the exchange rate, particularly in the recent period. Macro data also support the view of a local economy that has transformed post-1997-98 Asian financial crisis (AFC) to a haven for manufacturing FDI while establishing its identity as a regional exporter of broad-based products. In the process of this transformation, the exchange rate has not been the only key determinant.

[1] Jun Trinidad, Thailand Macro View - Easing Political Tensions a Key Factor behind Fitch Upgrade, 11 March 2013

**Figure 1. Lacking direction correlation between changes of export volume and strong baht**




Source: CEIC, Citi Research

- **Statistically significant supply-side determinants of export volume excluded the exchange rate measure.** We also did a 'supply based' regression equation although ad hoc in form, that attempts to explain the quarterly changes of manufacturing export volume quarterly according to the following determinants: 1) exchange rate, 2) unit labor costs, 3) real investments (ex-inv) consisting of private and public investments, and 4) indicator of 'openness': total trade as a percentage of GDP.

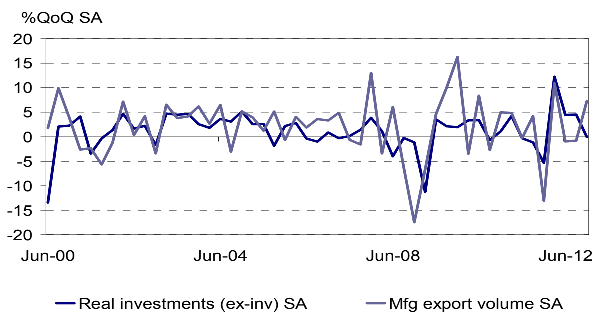
  Unit labor costs attempts to capture the effect of the wage bill relative to what's being produced. Real investments consisting of public and private investments contribute to additional capacities that facilitate production for the global and onshore markets. The familiar indicator of trade openness 'measures' policy preference for the local economy to remain engaged in the global markets. Theory relates a competitive exchange rate with strong exports. While there are other variables that we can include, we think these are the key determinants of export volume on the supply side.

  Our regression results (sample period: 1Q03 to 3Q12) indicated a statistically significant impact of real investments on manufacturing export volume. It's not the same for the exchange rate measure. A 1% change in real investments leads to a 0.817% change in export volume. Over time, this argues that FDI approvals/investments have taken a larger role in supporting export capacity (and thus the economy) than the exchange rate. Real investments expand supply that seems to cater to the global markets, while generating employment and incomes. We failed to get short or long lag responses of exports to investments. Key catalyst to real investments would be FDI approvals. We estimated that real FDI approvals (current and past two quarters) have a statistically significant influence on real investments.

  Unit labor costs and trade openness were also statistically significant in explaining manufacturing export volume, although their estimated coefficients (or elasticity estimates) aren't as large as what was obtained for real investments. A 1% increase in unit labor costs lowers export volume by 0.25% on average. Trade openness indicator bodes well for a 0.2% rise in manufacturing export volume.

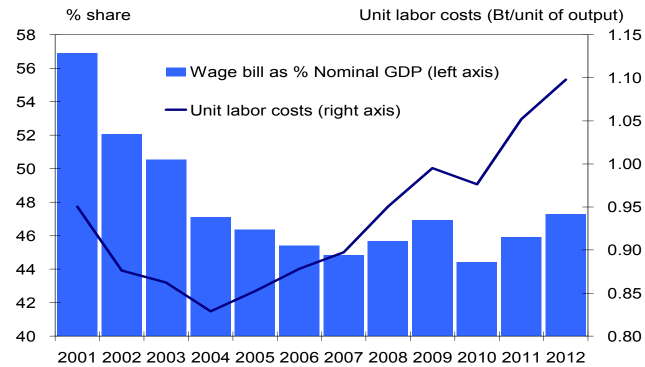
  Several exchange rate measures (nominal and real effective exchange rate index) were tried in the regression exercise, but failed to show statistically significant effects and with the wrong 'sign' (or direction of correlation).

**Figure 2. Strong correlation between quarterly changes in export volume and real investments**



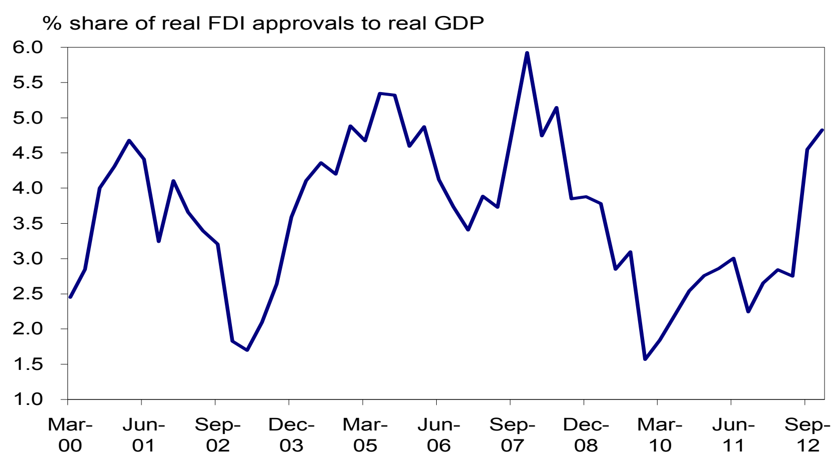

Source: CEIC, Citi Research

**Figure 3. Rising unit labor costs since 2005**




Source: CEIC, Citi Research

**Figure 4. Rising share of FDI approvals bodes well for real investments and export capacity**




Source: CEIC, Citi Research

**Figure 5. 'Supply' based regression equation of manufacturing export volume**

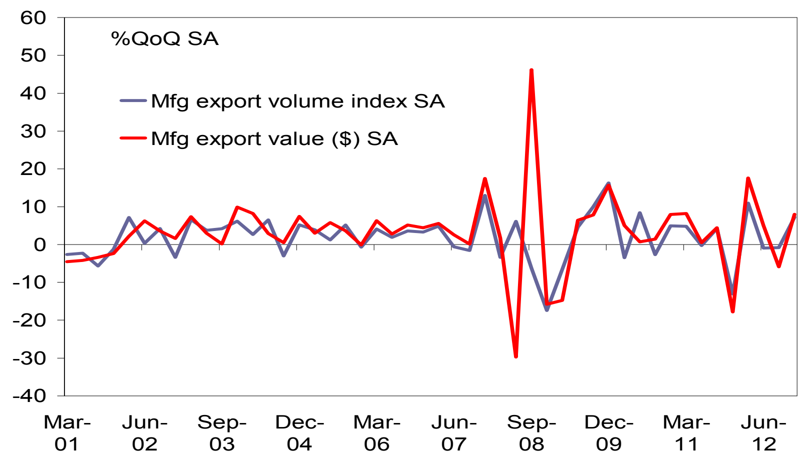
**Dependent Variable: Dlog (Export volume of manufactures SA)**
Ordinary least squares regression
Sample period: 2001Q3 - 2012Q3

| Explanatory Variables | Coefficient | t-Statistic | Remarks |
|---|---|---|---|
| Constant | 0.0031 | 0.46 | |
| Dlog (Unit labor costs SA) | -0.2524 | -2.33 | Potential for export volume to decline (increase) by 0.25% for a 1% increase (decrease) in unit labor costs |
| Dlog (Real investments ex-inv SA) | 0.8170 | 7.15 | Export volume can expand by 0.82% for every 1% rise in real investments |
| Dlog (Real effective exchange rate index SA) | 0.6822 | 1.00 | Exchange rate variable not statistically significant |
| Dlog (total trade % GDP) | 0.2290 | 2.11 | Expanding total trade can expand export volume by 0.23% |
| R2 | 0.37 | | Adjusted R2: 0.29 |
| D.W statistic | 1.92 | | |

Dlog- first difference of the logarithm of the variable; SA - seasonally adjusted
Source: Citi Research using EVIEWS

- **Manufacturing export dollar value strongly correlated with manufacturing export volume since Thai exports on average basically a 'price taker'.** In the chart below plotting quarterly changes of manufacturing export volume and value (in US dollars), the strong correlation cannot be denied. It clearly suggests that Thai exports are 'price takers' unlike the export products of US, Japan, Korea and China that may have the advantage of technology, unit costs and size. The correlation between volume and value (or volume changes driving the value movements) is understandable since multinational companies dominate the manufacturing export segment that 'sell' to their mother companies and/or rest of the world.

**Figure 6. Strong correlation between manufacturing export volume and value (US$) implies the price factor is hardly a determinant of exports**




SA - seasonally adjusted
Source: CEIC, Citi Research

With the 'export price factor' hardly a determinant of export value, we find it difficult to argue that a weak baht that's likely to feed through the price channel will have a strong impact on exports in general. Perhaps a competitive exchange rate policy would be a better determinant in attracting FDI and investments rather than having a direct export impact.

- **The weak or strong exchange rate in Thailand (or in other Asian exJ countries hosting Japanese companies) was not regarded as major business issue in the JETRO survey.** The Japan External Trade Organization (JETRO) 2012 survey highlights that 64.2% of Japanese firms in Thailand are keen on business development over the next 1-2 years. Out of 19 countries in Asia exJ including Australia-New Zealand where Japanese companies are based, the Thai survey response was $9^{th}$ highest among the countries. The favorable response rate from JETRO's survey was obtained despite Japanese firms prioritizing 'local market development' (Laos, India and Bangladesh garnered the highest response rates exceeding 80%) rather than developing export capacity. **We believe this favorable response rate for Thailand would translate into strong FDI approvals, but may not necessarily match last year's record high.**

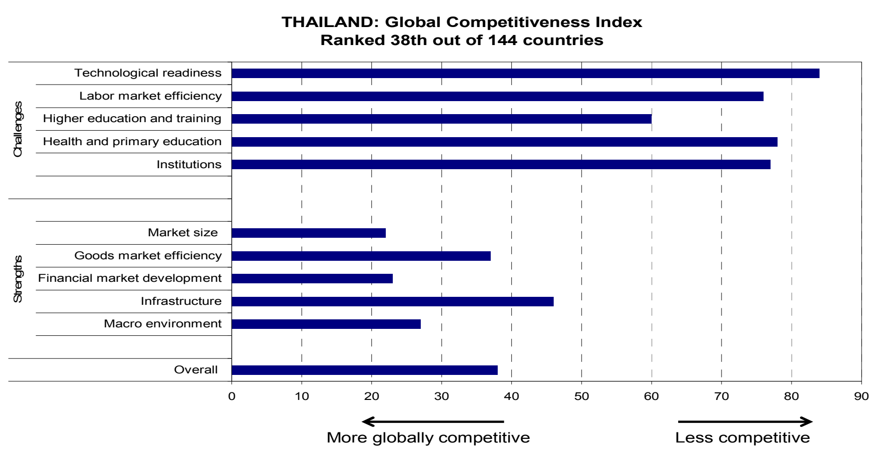
The country was counted among the top vote getters for future business expansion in communications/software (70%), motor vehicles/motor cycle production (74.2%) and food processing (60%). Roughly 88% of the Thai-based

respondents cited expected sales increase as the key reason behind the planned expansion. According to 43.5% of the respondents, business expansion in Thailand will focus on production of high-value-added items presumably for exports. This year, 50.8% of the Thai-based respondents expect an increase in operating profits relative to last year as the business outlook diffusion index seems inclined to finance/insurance and communications/software.

Business problems faced by Thai-based Japanese firms that were cited included: wage increases (77.9%, the 5th highest among countries surveyed), increased market competition/rising competitor's market share (57.2%), low labor productivity (55%), increase in procurement costs (49.2%), and quality of employees (inadequate skills) (48.7%).

**The country's relatively high competitiveness ranking, particularly on the macro environment, infrastructure, market size and stable and well capitalized banking system, should continue to appeal to foreign and local investors.** Ranked 38th among 144 countries in the Global Competitiveness Index (2012-13), Thailand scored highly on the macro environment (27th) and infrastructure (46th) that comprised two of the basic requirements of the competitiveness ranking. On the 'efficiency enhancers', Thailand ranked 47th overall largely due to favorable market size (22nd), financial market development (23rd) and goods market efficiency (37th).

**Figure 7. Latest global competitiveness report showed Thailand at the 38th spot**




Source: Global Competitiveness Report 2012-13

- **Macro conditions do not simulate pre- nor post 1997-98 AFC such that the exchange rate should be a key determinant of our macro universe.** Macro readings then and now (see table below) show: 1) Prevailing macro imbalances do not require massive exchange rate adjustments as part of the policy agenda unlike in pre AFC; 2) Past current account surpluses reflected in the real economy through persistent net exports contribution to GDP – a transformation from net imports position during the pre-AFC period; 3) Rising share of real investments to GDP since 2000 was coincident with higher share of net exports to suggest that the macro operating environment enabled investments to support export capacity ahead of imports; 4) External debt and government debt ratios to GDP have fallen to 40% or less, reflecting less dependence on foreign borrowings with the official reserves at 3.4x ST debt (vs. less than 1x in 1995); 5) Low, single-digit inflation over the past 10 years (reflecting low cost of doing

business) that allows some scope for baht appreciation without losing competitiveness; and 6) Economy and per capita incomes are 2.2x and 1.9x the size of what it was in 1995 with strong FDI contribution post-AFC. This favorable macro structure would best be served and sustained by a strong investment climate, in our view. A competitive exchange rate policy is among the policy building blocks, but not the most essential.

**Figure 8. Then (pre-AFC) and now (post-AFC): Thai economy has come a long way**

| Key macro indicators* | Pre-AFC period | | AFC | Post-AFC period | | | |
|---|---|---|---|---|---|---|---|
| | 1990 | 1995 | Average 1997-98 | 2000 | 2005 | 2010 | 2012 |
| **Market structure** | | | | | | | |
| GDP growth % | 11.2 | 9.2 | **-6.0** | 4.8 | 4.6 | 7.8 | 6.4 |
| Market size (US$bn) | 85.3 | 167.9 | **132.1** | 122.3895 | 176.2 | 318.8 | 366.0 |
| Average per capita income US$ | 1,527 | 2,827 | **2,127** | 1,967 | 2,707 | 4,736 | 5,389 |
| | | | | | | | |
| Real investments to RGDP | 39.1 | 42.0 | **27.7** | 19.9 | 23.4 | 20.8 | 22.8 |
| Domestic demand ex-inv growth % | 18.0 | 8.9 | **-15.5** | 5.0 | 6.8 | 6.1 | 8.4 |
| Net exports % GDP | -5.0 | -5.4 | **9.0** | 14.9 | 10.3 | 16.4 | 13.4 |
| Mfg output % GDP | | 32.6 | **33.7** | 36.4 | 38.9 | 39.2 | 40.8 |
| Jobless rate % (End-period) | | | **4.4** | 3.6 | 1.4 | 0.7 | 0.5 |
| | | | | | | | |
| **Money, inflation and policy rates** | | | | | | | |
| Output gap % | | 3.6 | **-0.8** | -0.7 | 0.7 | 1.5 | 2.6 |
| Core inflation % | 6.2 | 5.3 | **5.9** | 0.8 | 1.6 | 0.9 | 2.1 |
| Policy rate % (End-period) | 11.63 | 9.50 | **3.75** | 1.50 | 4.00 | 2.00 | 2.75 |
| Broad money % growth (End-period) | | | **9.4** | 4.0 | 6.1 | 10.9 | 10.4 |
| | | | | | | | |
| **Macro imbalances, debt and exchange rates** | | | | | | | |
| Fiscal deficit % GDP | | | | | 0.3 | -0.03 | -2.0 |
| Public sector debt % GDP | | | **45.2** | 57.0 | 46.2 | 41.9 | 43.5 |
| Current account % GDP | | -7.9 | **5.4** | 7.6 | -4.3 | 3.1 | 0.8 |
| Official reserves US$ bn | 14.3 | 37.0 | **28.3** | 32.7 | 52.1 | 172.1 | 181.6 |
| External debt % GDP | 40.1 | 69.1 | **67.4** | 66.7 | 37.0 | 35.2 | 36.4 |
| % ST to Ext Debt | 35.5 | 52.0 | **31.0** | 18.4 | 38.9 | 50.4 | 45.5 |
| % LT to Ext Debt | 64.5 | 48.0 | **69.0** | 81.6 | 61.1 | 49.6 | 54.5 |
| Official reserves to ST Ext Debt | 137.0 | 70.7 | **87.2** | 222.3 | 225.8 | 339.8 | |
| USD/THB (End-period) | 25.19 | 25.16 | **36.25** | 43.09 | 41.07 | 30.12 | 30.64 |
| Real Effective Exchange Rate Index (BIS) (End-period) | | 108.7 | **95.6** | 84.0 | 86.7 | 102.7 | 100.1 |
| | | | | | | | |
| **Access to FDI** | | | | | | | |
| FDI approvals Bt bn | | | **278.3** | 212.9 | 325.8 | 279.2 | 548.9 |
| As % GDP | | | **5.9** | 4.3 | 4.6 | 2.8 | 4.8 |
| FDI US$bn | | | **4.4** | 5.1 | 8.0 | 9.1 | 8.9 |

* - combination of old and new series AFC - Asian financial crisis

Source: CEIC, Citi Research

## Sustaining favorable structural conditions should help the economy cope with a strong baht

While our empirical analysis of the exchange rate impact on the real economy did not utilize a comprehensive economy-wide model, we think the issues raised even at the macro level downplay the strong baht impact. Moreover we believe structural reforms and changes since the post-1997-98 AFC strengthen the economy's resilience to shocks that may require exchange rate weakness; these reforms and changes have led to greater export orientation that supported buildup of reserves, higher per-capita incomes leading to increased savings, rising investment contribution, stable macro gaps, low secular inflation, and less debt pressures.

Since macro conditions are materially different prior to the 1997-98 AFC, we argue that maintaining competitiveness is not just a case of a weak baht, but also having the optimal policy framework and infrastructure that can attract more investment and expand supply capacity to cater to global and onshore markets.

According to the global competitiveness report, the country faces challenges in key elements such as higher education, labor market efficiency, institutions, and technological readiness that can hasten Thailand's ascent to an 'efficiency driven' economy. Sustaining the existing structural economic conditions while tackling the 'efficiency challenges' will help the country cope with a strong baht over time, in our view. Improving governance will also be essential in strengthening investor confidence.

Admittedly SME exporters including those populating the farm sector are likely to suffer from a strong baht. We think the government has to put in place the needed safety nets for those susceptible to a strong baht outlook while encouraging even SME exporters to hedge their future earnings.

## Market implications

With risk-off sentiment in today's trading coupled with verbal pressure from the Finance Minister of his preference for a weak local currency, the baht appears to be consolidating at 29.22, which is not too far from our expectation of 29.5 in March. We remain positive on the fundamentals likely to be investment driven. We also noted less BoT resistance to a stronger baht in the current macro environment with the added risk of strong portfolio flows. BoT and markets may also take cues from whether Parliament will approve the government's MT public investment program this month. Delays caused by increased political noise arising from legal charges faced by PM Yingluck may dim the prospects for baht reaching 29. Towards June, we expect the baht to retreat to a range of 29.80 on stronger USD/Asia although the strong fundamental story should remain intact.

One particular nuance that can support a stronger baht trend may be BoT's observance of 'structural' flows e.g. FDI, exports, trade credits, etc., dominating the portfolio or cyclical flows. Structural flows support growth and investments rather than speculative financial activities with the added risk of reversals. The recent Fitch upgrade allows for local currency appreciation, perhaps in anticipation of increased portfolio flows reacting favorably to the upgrade. A stronger baht may be the preferred policy option to ease upside inflationary risk from the demand-side with a positive output gap in place.

# Appendix A-1

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