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U.S. Trade Imbalances, East Asian Exchange Rates, and a New Plaza Accord※

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Abstract

The U.S. real effective exchange rate is at its highest level since 1985. In that year, the U.S. and its trading partners coordinated a depreciation of the dollar and the U.S. agreed to reduce its budget deficit. This paper reports that a dollar depreciation today would still improve U.S. trade imbalances with East Asia and the world. East Asian countries would also benefit from a dollar depreciation because it would lower the local currency costs of imported oil, commodities, and food and reduce imported inflation. The U.S. and East Asia should consider engineering a coordinated dollar depreciation and the U.S. should again reduce its budget deficit.

Keywords: Trade imbalances, Exchange rate elasticities, U.S., East Asia, Plaza Accord

JEL classification: F14, F42

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1. Introduction

The Federal Reserve raised the federal funds rate by 425 basis points between January 2022 and December 2022 to fight inflation. The U.S. is also running a budget deficit of 6.1% of GDP in fiscal year 2022. It ran budget deficits averaging 13.7% of GDP in 2020 and 2021. The Bank for International Settlements real effective exchange rate for the dollar appreciated 18% between January 2021 and October 2022. It is now at its highest level since 1985 (see Figure 1).

In 1985 the G5 nations (France, West Germany, Japan, the U.S., and the UK) weakened the real effective dollar exchange rate through the Plaza Accord. At that time the combination of anti-inflationary monetary policy and U.S. budget deficits of 5% of GDP caused real interest rates around the world to soar (Frankel, 1994). West German Chancellor Helmut Schmidt observed that real interest rates in the 1980s reached their highest level since the time of Christ (*New York Time*s, 1981). Higher real interest rates in the U.S. compared to its trading partners caused the U.S. real effective exchange rate to appreciate by 40% between 1980 and 1985. U.S. exporting and import-competing firms lost their price competitiveness. The U.S. ran trade and current account deficits reaching 3% of GDP in 1985.

The U.S. steel, textile, agriculture, automobile, and capital goods sectors suffered. The carnage facing American manufacturers jolted Congress into action. In 1985 members of Congress introduced 99 trade bills that were overtly protectionist and 77 that were potentially protectionist (Destler, 1986).

To deflect protectionist pressures, the G5 countries focused in the 1985 Plaza Accord on the macroeconomic determinants of trade imbalances. The current account balance equals the difference between national saving (private saving minus the budget deficit) and investment. The U.S. reduced its budget deficit to increase national saving, Japan and Germany enacted stimulative policies to reduce national saving, all five countries worked together to reduce the value of the dollar, and all agreed to resist protectionist pressures. The real effective dollar exchange rate depreciated in an orderly manner.

Figure 2 shows that the U.S. current account deficit improved and turned to surplus in 1991. The figure also shows, however, that the current account has been in continual deficit ever since and averaged 3.4% of GDP between 2000 and 2022. It has averaged 4.3% of GDP for the first two quarters of 2022. Comparing Figures 2 and 3 indicates that many of the changes in the current account deficit are driven by changes in the trade deficit. These deficits harm the U.S. by causing a massive wealth transfer to the rest of the world. They harm Asian countries by stoking protectionist pressures in the U.S. This was evident during the Plaza Accord period.

Protectionist pressures in the U.S. were also evident after China joined the World Trade Organization in 2001. China's accession led to a surge of foreign direct investment into China from Taiwan, South Korea, Japan, and other economies as investors gained confidence that China would respect the rule of law. As knowhow from advanced countries joined with inexpensive Chinese labor, China's exports soared. Firms in China manufactured competitive products that penetrated U.S. markets. China and other East Asian countries also sustained price competitiveness during the first decade of the 21st century by purchasing trillions of dollars of foreign exchange reserves to maintain competitive exchange rates.

U.S. workers suffered “stunning” losses in manufacturing jobs from imports from China (Pierce and Schott, 2016, and Acemoglu, Autor, Dorn, Hanson, and Price, 2016). Pierce and Schott (2016) documented that these losses occurred disproportionately in specific regions. This hindered workers in these regions from finding other jobs. Pierce and Schott also reported that there were more “deaths of despair” in U.S. counties that were more exposed to competition from China. Case and Deaton (2015) also found a surge in deaths from drug abuse, alcohol-related diseases, and suicides in middle-aged whites.

These travails caused protectionism to explode. They motivated Donald Trump to start a trade war against China in 2018. He imposed 25% tariffs on $50 billion of Chinese imports in June 2018. China responded with tariffs on $50 billion of U.S. imports. The tariff war escalated in tit-for-tat fashion. U.S. tariffs on Chinese imports rose on average from 3.1% to 19.3%. Chinese tariffs on U.S. imports rose from 8.0% to 20.7% (Bown, 2021).

While protectionism has deterred Asia’s exports, currency depreciations may be working in the opposite direction. Asian currencies have tumbled relative to the dollar. Between 1 January 2022 and 25 October 2022, in nominal terms the Japanese yen fell 26%, the Chinese renminbi fell 14%, the Korean won fell 19%, the new Taiwan dollar fell 16%, and the Malaysian ringgit and Thai baht both fell by 13%. These depreciations can increase the price competitiveness of Asian exporters directly. They may also have an additive effect. Many of Asia's electronic goods are produced using parts and components coming from other Asian countries. A depreciation across the East Asian supply chain may increase the competitiveness of electronics exports more than a depreciation in a single country.

While excessive real depreciations such as Asian economies are experiencing in 2022 may stimulate exports, they also inflict damage. East Asian economies have few natural resources and are dependent on imports of oil, commodities, and food. These are typically priced in U.S. dollars. When Asian currencies depreciate in nominal terms against the dollar, the local currency costs of these imports increase. The U.S. dollar costs of oil, commodities, and food are already elevated because of the Ukraine War. Japan and South Korea have run large trade deficits over the January – September 2022 period. Continued nominal depreciations risk creating a vicious cycle, where depreciations increase the local currency cost of imports and thus the trade deficit and this in turn causes depreciations. Depreciations are also leading to cost-push inflation in Asia at a time when inflation is already high.

One solution would be for Asian countries to peg their exchange rates relative to the dollar. However, as Tervala (2019) discussed, pegging to the dollar when the Federal Reserve is aggressively raising interest rates would imply that Asian countries would have to follow suit. In the context of a two-country New Keynesian model, Tervala found that such a dollar peg would be suboptimal for Asian countries when the Fed is tightening.

Another possibility is for the U.S. and East Asia to coordinate exchange rate policy to achieve a Pareto-improving outcome. To shed further light on this, this paper investigates how real exchange rates impact U.S. exports and imports. As Figure 4 shows, U.S. imbalances with East Asia are particularly large. Figure 5 shows the important role that Asia's exports play in driving these imbalances. This paper thus focuses not only on how exchange rates impact U.S. exports and imports but also on how they impact Asian exports.

In addition, fiscal consolidation in the U.S. can help to rebalance America's trade. Tervala and Watson (2022), using a two-region dynamic stochastic general equilibrium model with hysteresis effects, reported that an expansionary fiscal shock reduces the current account balance by 0.4% of GDP. Thus a reduction of the budget deficit of 1% of GDP would improve the current account balance by 0.4% of GDP. Abbas et al. (2011), using a quarterly structural vector autoregression with government consumption shocks to measure fiscal policy changes, reported that an improvement of the fiscal balance of 1% of GDP would improve the current account balance by between 0.3% and 0.5% of GDP. These results imply that if the US implemented a fiscal consolidation of 3% of GDP, it would improve the U.S. current account balance by between 0.9% and 1.5% of GDP. Fiscal discipline could thus reduce the persistent current account deficits that are evident in Figure 2.

The next section presents the data and methodology. Section 3 presents the results. Section 4 reports how exports and imports have performed relative to forecasted values since the arrival of the COVID-19 pandemic. Section 5 discusses implications of the findings. Section 6 concludes.

2. Data and Methodology

The empirical work in this paper is based on the imperfect substitutes framework (Goldstein and Khan, 1985). Imported goods are posited to be imperfect substitutes for domestic goods. In this model foreign export supply is a function of the price of the foreign country's exports (the domestic country's imports) in the foreign currency relative to the foreign price index. Domestic import demand is a function of the price of imports in the importing country's currency relative to the price of domestic goods and of domestic income. Equating export supply and import demand yields the export function:

$$lnX_t = \beta_0 + \beta_1 lnRER_t + \beta_2 lnY_t * \qquad (1),$$

where X represents real exports, RER is the real exchange rate and Y* is foreign real GDP. Import functions can be derived in an analogous manner:

$$lnIm_t = \alpha_0 + \alpha_1 lnRER_t + \alpha_2 lnY_t \qquad (2),$$

where Im represents imports.

Quarterly data on U.S. goods imports excluding oil and goods exports are obtained from the U.S. Census Bureau (2022) and the U.S. International Trade Commission (2022). These are deflated using import and export price data obtained from the U.S. Bureau of Labor Statistics (2022). Data on the broad consumer price index deflated real effective exchange rate are obtained from the Bank for International Settlements (2022) and data on U.S. real GDP from the OECD (2022). Data on real GDP in the rest of the world are proxied by real GDP in OECD countries.[1] The model is estimated using dynamic ordinary least squares (DOLS) and data extending from 1994Q1 to 2019Q4. The sample stops just before the COVID-19 outbreak to avoid any possible distortions.

The estimated export function takes the form:

$$X_t = \beta_0 + \beta_1 rer_t + \beta_2 y_t * + \sum_{k=-K}^{K} \gamma_{1,k} \Delta rer_{t+k} + \sum_{k=-K}^{K} \gamma_{2,k} \Delta y_{t+k} * + \varepsilon_t \qquad (3),$$

where K represents the number of leads and lags of the first differenced variables and the other variables are defined above. Following Stock and Watson's (1993) suggestion, a time trend is included in the estimation. The import function is estimated by an analogous regression:

$$IM_t = \alpha_0 + \alpha_1 rer_t + \alpha_2 y_t + \sum_{k=-K}^{K} \phi_{1,k} \Delta rer_{t+k} + \sum_{k=-K}^{K} \phi_{2,k} \Delta y_{t+k} + \varepsilon_t \qquad (4).$$

In both equations (3) and (4) two lags and two leads of the first differenced right-hand side variables and quarterly dummies are included.

Equations (3) and (4) are treated as semi-reduced form regressions (see Chinn, 2005). Exchange rates are volatile and assumed to be more exogenous then the relative prices of exports or imports used to derive equations (1) and (2). The parameters in equations (3) and (4) are thus given a structural interpretation.

Export functions are also estimated for Japan, South Korea, Taiwan, China, Malaysia, and Thailand. Data on real exports for these economies are obtained from CEIC (2022). Data on broad real effective exchange rates are obtained from the Bank for

[1] The results are very similar when GDP in the rest of the world is proxied by a geometrically weighted average of GDP in 15 of the U.S.'s leading trading partners.

International Settlements (2022). Data on GDP in OECD countries are again used as the scale variable and are obtained from the OECD (2022). Equation (3) is estimated with quarterly dummies and with a time trend. For Japan, South Korea, and Taiwan, data between 1994Q1 and 2019Q4 are employed. For China, the sample is truncated at 2016Q3. This is because the election of Donald Trump in 2016Q4 changed the behavior of Chinese exporters (see, e.g., Jiang et al., 2022). The price elasticities are similar though when the sample is extended to 2019Q4. For Malaysia and Thailand, real export data are only available starting in 2005Q1, so the 2005Q1-2019Q4 sample period is employed.

To test whether depreciations throughout the supply chain have a larger effect on exports, China's leading electronics export category, phones, is modeled as a function not only of the renminbi real exchange rate but also of real exchange rates in the countries providing electronic parts and components (EP&C).[2] The nine leading suppliers of EP&C to China are used to calculate real exchange rates in supply chain countries. These suppliers are Taiwan, South Korea, Japan, Singapore, Malaysia, Thailand, the Philippines, Germany, and the U.S. For these economies weights are calculated by dividing the value of their EP&C exports to China by the value of EP&C exports to China from all nine suppliers together. These weights are employed to construct a real exchange rate index in supply chain countries (SSRER) using the equation:

$$SSRER_t = SSRER_{t-1}\prod_i(RER_{i,t}/ RER_{i,t-1})^{w_{i,t}} \qquad (5),$$

[2] Data on EP&C exports to China are obtained from CEPII (2022).

Where $RER_{i,t}$ is the real effective exchange rate in supply chain country *i* at time *t* and $w_{i,t}$ is the share of EP&C exports coming from supply chain country *i* relative to all nine supply chain countries.

3. Results

The estimated import function for the U.S. is:

$$\underset{}{IM} = \underset{(0.04)}{0.52^{***}RER} + \underset{(0.18)}{2.10^{***}y} + \cdots. \qquad (6)$$

Sample Period = 1994Q4-2019Q4, Adjusted R-squared = 0.988, Heteroskedasticity and autocorrelation corrected standard errors in parentheses, *** denotes significance at the 1% level.

In equation (6) IM represents U.S. real imports excluding oil, RER represents the real effective exchange rate, and y represents U.S. real GDP. The results indicate that a 10 percent dollar depreciation would reduce imports by 5.2% and that a 10% increase in U.S. GDP would increase imports by 21.0%.

The estimated export function for the U.S. is:

$$X = \underset{(0.07)}{-0.52^{***}RER} + \underset{(0.33)}{1.77^{***}y^*} + \cdots. \qquad (7)$$

Sample Period = 1994Q4-2019Q4, Adjusted R-squared = 0.983, Heteroskedasticity and autocorrelation corrected standard errors in parentheses, *** denotes significance at the 1% level.

In equation (7) X represents U.S. real exports, RER represents the real effective exchange rate, and y* represents real GDP in the rest of the world. The results indicate that a 10 percent dollar depreciation would increase exports by 5.2% and that a 10% increase in rest of the world GDP would increase exports by 17.7%.

The Marshall–Lerner condition states that, beginning from balanced trade, a currency depreciation will improve a country's trade balance if the sum of the absolute values of the export and import elasticities exceeds one. The price elasticities in equations (6) and (7) just meet this condition. This suggests that a real dollar depreciation would help to improve the U.S. trade balance. However, the price elasticities are not large.

The U.S. budget deficit has averaged 6.6% of GDP over the last 12 years. This fiscal stimulus increases U.S. GDP and thus the U.S. current account deficit. The U.S budget deficit that caused consternation in 1985 was below 5% of GDP. So the U.S. budget and current account deficits that led to urgent action in the Plaza Accord are now exceeded year after year. To reduce the U.S. current account deficit, a depreciation of the dollar should be accompanied by a reduction in the budget deficit. Results in Tervala and Watson (2022) and Abbas et al. (2011) indicate that a fiscal consolidation of 3% of GDP would improve the U.S. current account balance by between 0.9% and 1.5%.

Table 1 reports export elasticities for the East Asian economies. For China, the results in column (3) indicate that a 10% real renminbi depreciation would increase China's exports by 20.3%. These findings indicate that China's exports are sensitive to the exchange rate. The results in row (4) indicate that Japan's exports are irresponsive to real exchange rates. Row (5) indicates that a 10% real depreciation of the won would increase Korea's exports by 5.4% and row (6) indicates that a 10% real depreciation of the New Taiwan dollar would reduce Taiwan's exports by 3.7%. The coefficient on the Korean won is statistically significant and the coefficient on the New Taiwan dollar is significant at the 10% level. Row (7) indicates that a 10% real depreciation of the Malaysian ringgit would increase exports by 7.6%.[3]

In row (8) both of the trade elasticities for Thailand are incorrectly signed. One explanation for this could be the floods that Thailand experienced in 2011Q4. This caused some multinationals to seek other places to establish factories. Future research should investigate in depth how this episode has affected Thailand's exports and its export elasticities.

While Table 1 indicates that real depreciations in Korea, Taiwan, and Malaysia increase exports to some extent, they may also increase exports in downstream supply chain countries that export products with value-added from Korea, Taiwan, and Malaysia. In particular, Korea, Taiwan, and Malaysia are leading suppliers of sophisticated electronic parts and components such as semiconductors to downstream supply chain countries such as China. China in turn uses these to produce final electronics goods such as phones for re-export to the rest of the world.[4]

The estimated export function for China's phone exports is:

$$\underset{(0.15)}{X = -3.17^{***}RER} + \underset{(0.62)}{3.54^{***}y^*} + \underset{(0.50)}{-2.42^{***}SSRER} + \cdots. \qquad (8)$$

Sample Period = 1994Q4-2016Q3, Adjusted R-squared = 0.997, Heteroskedasticity and autocorrelation corrected standard errors in parentheses, *** denotes significance at the 1% level.

[3] Using Vogelsang's (1993) p-values and the Dickey-Fuller statistic to test for a structural break in the mean and trend of Malaysia's exports, the results point to a break at 2008Q3. Estimation controlling for a break in the mean and trend at this date yields an exchange rate coefficient of -0.20 with a standard error of 0.16.

[4] Since much of the value-added of China's electronics exports come from imported parts and components and from foreign companies that outsource production to China, much of the profit from phone exports accrues to agents outside of China.

In equation (8) X represents China's real phone exports, RER represents China's real effective exchange rate, y* represents real GDP in OECD countries, and SSRER represents a geometrically weighted average of real exchange rates in the nine leading countries supplying electronic parts and components to China. The results indicate that a 10 percent renminbi depreciation would increase exports by 31.7%, that a 10% increase in rest of the world GDP would increase exports by 35.4%, and that a 10% depreciation in upstream supply chain countries would increase exports by 24.2%.

The important implication of the results in equation (8) is that a concerted real depreciation across East Asian currencies will cause a much large increase in the region's exports than a depreciation in a single country. This is of particular moment now when so many Asian currencies are depreciating at the same time.

How do the results in this section compare to previous findings. For the U.S., Chinn (2010) used DOLS techniques to estimate trade elasticities for U.S. imports and exports over the 1975Q1-2010Q1 period. In his baseline specification, he reported price elasticities of 0.45 for goods imports excluding oil and 0.6 for goods exports excluding agriculture. These results are close to the price elasticities of 0.52 for both exports and imports in equations (6) and (7).

For Japan, Chinn (2013) investigated export elasticities using Johansen maximum likelihood techniques over the 1990Q1 to 2012Q3 period. He found real exchange rate elasticities of between 0.4 and 0.7. However, during the yen appreciation period between 2007 and 2012 many Japanese firms relocated production abroad (see Sasaki et al. 2022). Because of this Thorbecke (2022) investigated whether Japanese exports remained sensitive to exchange rates after 2012. Using DOLS methods over the 1998Q1-2012Q4 period he reported, similar to Chinn, real exchange rate elasticities of 0.46. However, extending the sample to 2018Q2 causes the export elasticity to fall to 0.02. Also, employing parameter estimates over the 1998-2012 period and actual out-of-sample values of the independent variables over the 2013-2018 period, he found that exports on average were 12% less than predicted over the 2013-2018 period. The finding that yen depreciations thus did not stimulate exports as predicted after 2012 is consistent with the results in Table 1.

For China, Cheung et al. (2012) used DOLS techniques to estimate trade elasticities for China's exports over the 1994Q3-2010Q4 period. For aggregate exports, they reported real exchange rate elasticities of between 0.9 and 1.6. The price elasticity of 2.03 in Table 1 indicates that China's exports continue to be sensitive to exchange rates.

For China's processed exports, Ahmed (2009) documented that processed exports are manufactured using imports for processing that come mainly from East Asian countries. He used an autoregressive distributed lag model and quarterly data over the 1996-2009 period to examine how the Chinese yuan and exchange rates in upstream East Asian countries affect China's processed exports. He found that a 10 percent real renminbi appreciation reduces processed exports by 15 percent and that a 10 percent real appreciation in East Asian supply chain countries reduces processed exports by 17 percent. The impact of upstream exchange rates reported in equation (8) is slightly larger than the elasticity of 1.7 that Ahmed (2009) reported. These findings indicate that depreciations in upstream Asian countries supplying parts and components have a large impact on the exports of downstream Asian countries exporting final goods.

4. Trade during the COVID-19 Era

To investigate how the arrival of the COVID-19 pandemic in 2020Q1 has impacted trade, the findings from the previous section are combined with actual out-of-sample values of the right-hand-side variables to forecast exports or imports during the COVID-19 era. The forecasted values are then compared to the actual values.

Figure 6 shows U.S. actual and forecasted real imports excluding oil. Imports fell 12% between 2019Q4 and 2020Q2. This was 7% less than forecasted. Imports then regained their pre-pandemic value in 2020Q3 and were 10% above their forecasted value in 2020Q4. They remained above their forecasted values in 2021 and 2022.

Figure 7 shows U.S. actual and forecasted exports. Exports fell 31% between 2019Q4 and 2020Q2. This fall was 9% more than forecasted. They have remained less than forecasted since then and have not regained their pre-pandemic values. There was a shortfall of exports relative to imports going into the pandemic, and this has grown as export performance lagged behind import performance during the pandemic.

The best Asian export performer during the pandemic was Taiwan. Figure 8 shows Taiwan's actual and forecasted exports. Exports fell 11% between 2019Q4 and 2020Q1 when they were forecasted to fall 35%. They regained their pre-pandemic levels by 2020Q3 and averaged more than 30% above forecasted levels after 2020Q2.

Malaysia also performed well. Figure 9 shows Malaysia's actual and forecasted exports. Exports fell 16% between 2019Q4 and 2020Q1 when they were forecasted to fall

45%. They regained their pre-pandemic levels by 2020Q3 and averaged more than 24% above forecasted levels after 2020Q2.

Figure 10 shows China's actual and forecasted exports. Exports fell 34% between 2019Q4 and 2020Q1. They then regained their pre-pandemic value in 2020Q3 and continued growing. Although China's exports are less than forecasted, the forecasting equation contains a trend term. It would be difficult for China's exports to continue growing at the breakneck speed they have grown at since China joined the World Trade Organization in 2001.

Figure 11 and 12 show Korea and Japan's actual and forecasted exports. Korea's exports fell 15% between 2019Q4 and 2020Q2. They then remained below the pre-pandemic value and far below their forecasted values. Japan's exports show seasonal variation but have regained pre-pandemic levels and hover around forecasted values.

The best performing exporters in Figures 6 through 12, Taiwan and Malaysia, have benefitted because integrated circuits (IC) loom large in their export baskets (42% of Taiwan's exports in 2020 and 25% of Malaysia's exports). There was a surge in demand for IC during the pandemic as people working from home needed more computers, phones, and office equipment and the IC necessary to drive this equipment. Demand for these electronics goods also contributed to the surge in U.S. imports that is evident in Figure 6. Korea benefited from increased demand for IC to power final electronics goods, but suffered as drops in exports of automobiles, petroleum products, steel, and other goods more than offset the increased demand for IC.

5. Discussion

While the Plaza Accord helped weaken the dollar, it was followed by a “lost decade” in Japan. Some of Japan’s difficulties sprang, not from the Plaza Accord but from its actions afterwards. U.S. Treasury Secretary James Baker prodded Japan to stimulate its economy to reduce U.S. imbalances (Frankel, 1994). In October 1986 Japan agreed to Baker’s demands. Japan cut its discount rate and its tax rate (Funabashi, 1989). The Japanese recognized, though, that stimulative policy was questionable because the Japanese economy was overheating, real estate and stock prices were increasing, and money supply growth was accelerating (James, 1996).

On 22 February 1987 Japan again agreed as part of the Louvre Accord to implement expansionary fiscal policy and to cut its discount rate. Bernanke and Gertler (1999) found that Japanese monetary policy at this time was too stimulative. They reported that the Bank of Japan’s (BoJ) policy rate, the call money rate, was lower than the level implied by Taylor's Rule.[5] These expansionary policies fed bubbles in real estate and stock prices. The BoJ then raised interest rates and the bubbles burst in 1990. Because Japan had a bank-based credit system, the popping of the bubbles restricted credit provision (Okina and Shiratsuka, 2003). This devastated firms dependent of bank borrowing and contributed to the lost decade in the 1990s.

The problem with these policies that Japan implemented after the Plaza Accord was that they were not in the best interest of the Japanese economy. The U.S. pressured Japan to implement excessively stimulative policies and Japan agreed. It is important going

[5] Taylor’s rule determines interest rates based on values of inflation and the output gap.

forward for any international agreement to actually be Pareto-improving. Thus each country has to decide for itself whether it would gain from policy accords.

Japan judged that the weak yen in October 2022 was harmful and spent 6.35 trillion yen to strengthen the yen. These interventions did little to strengthen the yen, however (Inagaki, 2022). In this instance coordinated intervention with the U.S. might have helped Japan to achieve its own goal of strengthening the yen. Korea and Taiwan were also concerned about their own weak currencies at the same time. Weak currencies have caused local currency costs of imported food, oil, and commodities to soar. The increase in the value of imports has offset the stimulus of weaker exchange rates to exports and swollen trade deficits in Korea and Japan in 2022. When trade deficits feed into current account deficits, as they did in Korea in 2022Q3 and in Japan in October 2022, they can cause Asian currencies to weaken further and contribute to a vicious cycle of depreciations.

So Asian countries may want to see their currencies appreciate. The results in this paper indicate that the U.S. could benefit from a weaker dollar because it would improve the trade balance. It could be that East Asian currencies will appreciate and the dollar will depreciate. If they do not, or if they do and then the dollar returns to stratospheric levels against Asian currencies, each country should consider whether coordinated exchange rate intervention might be in their interest.

6. Conclusion

The U.S. has run perennial trade deficits with East Asia and these expanded during the COVID-19 pandemic. When the dollar real effective exchange rate appreciates, the

U.S. trade deficit increases and Asia's trade surplus increases. Similarly, when the U.S. runs large budget deficits, it stimulates U.S. GDP and increases U.S. imports and the U.S. current account deficit. The dollar on a real effective basis in late 2022 is at its strongest level since 1985. The U.S. budget deficit has also averaged almost 7% of GDP over the last 12 years. The strong dollar and the expansionary fiscal policy will cause large U.S. trade deficits to persist. The impact will be multiplied because many East Asian countries supplying value-added in regional value chains are all depreciating simultaneously in real terms against the U.S. dollar. This raises the price competitiveness of Asia's electronics exports much more than if exchange rates in downstream Asian exporters such as China appreciated alone.

Persistent trade deficits are not in America's interest. They also damage Asia by causing protectionist pressures in the U.S. to explode. Weak real and nominal exchange rates are not now in East Asia's interest. With the price of oil, commodities, and food already elevated in U.S. dollar terms, the local currency prices of these vital imports for East Asia rise even more. This can lead to a vicious cycle where weak exchange rates lead to trade deficits that lead to weaker exchange rates. Depreciations are also stoking inflation in Asia at a time when inflation is already high.

Countries such as Japan have sought to intervene to strengthen the yen but have not succeeded. Now is an opportune time for the U.S., East Asia, and other trading partners to consider coordinated intervention. To be effective, this should come as a surprise to the market. The intervention should be large. East Asian countries also have other tools available such as reinvesting pension and insurance funds in domestic or other East Asian assets rather than U.S. assets. The U.S. should also, as it did in the Plaza Accord, reduce its budget deficit.

Geopolitical tensions are exploding. The sight of the two leading economies, the U.S. and China, coordinating to enact mutually beneficial policies would bring welcome respite. It might even pave the way for other types of cooperation between the two countries on economic, environmental, or health related matters. This could help to dial down the white hot tensions between the two countries.

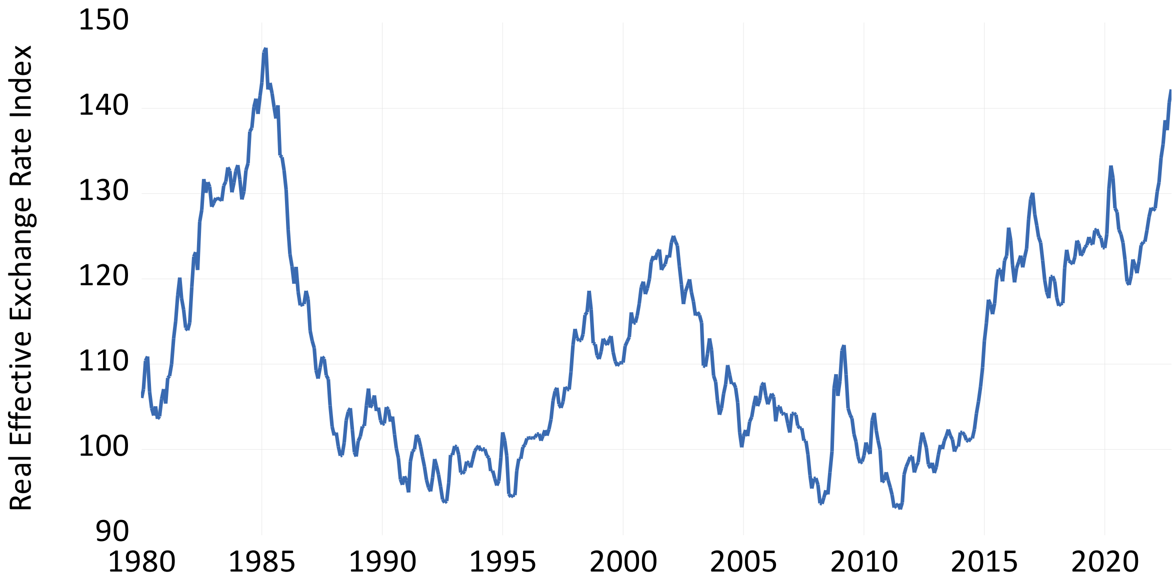

Figure 1. U.S. Real Effective Exchange Rate Index.
Source: Bank for International Settlements.

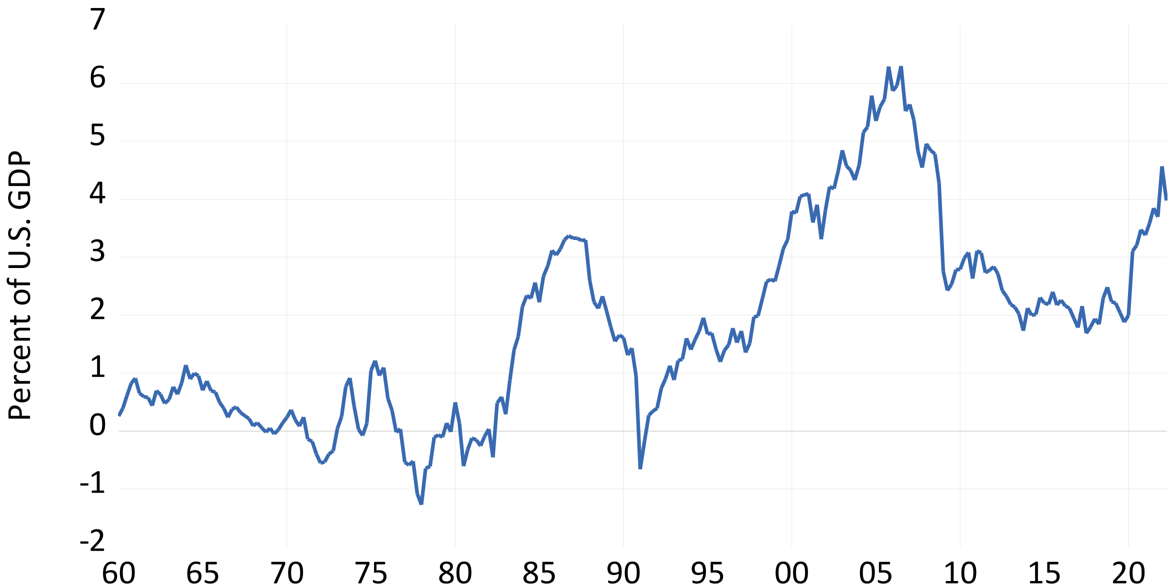

Figure 2. U.S. Current Account Deficit as a Percent of GDP.
Source: Federal Reserve Bank of St. Louis FRED database and calculations by the author.

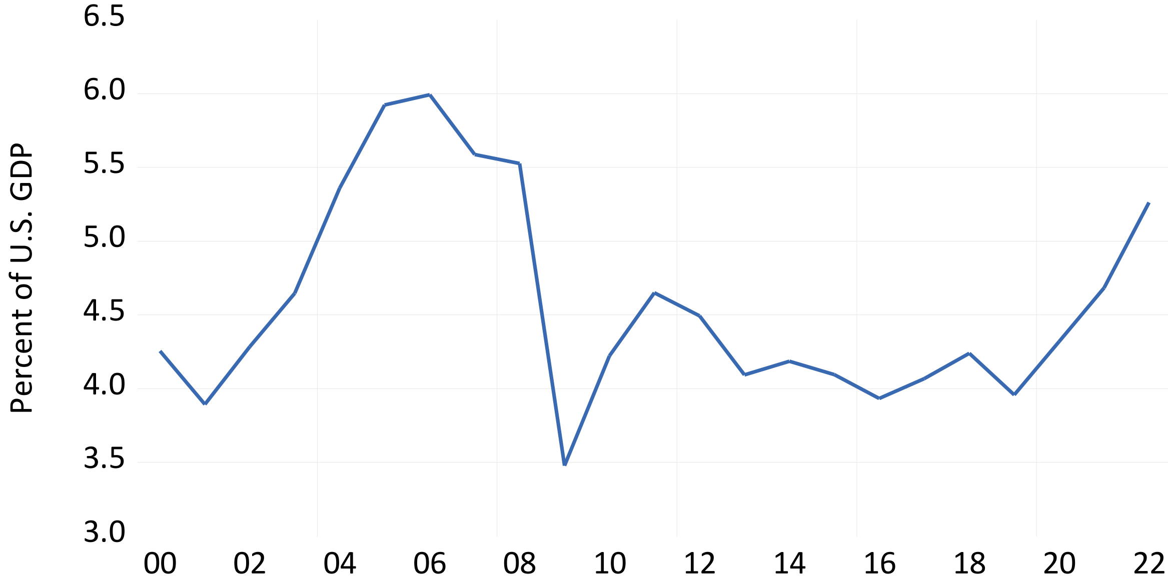

Figure 3. U.S. Trade Deficit over the 2000-2022 Period.
Source: U.S. Census Bureau.

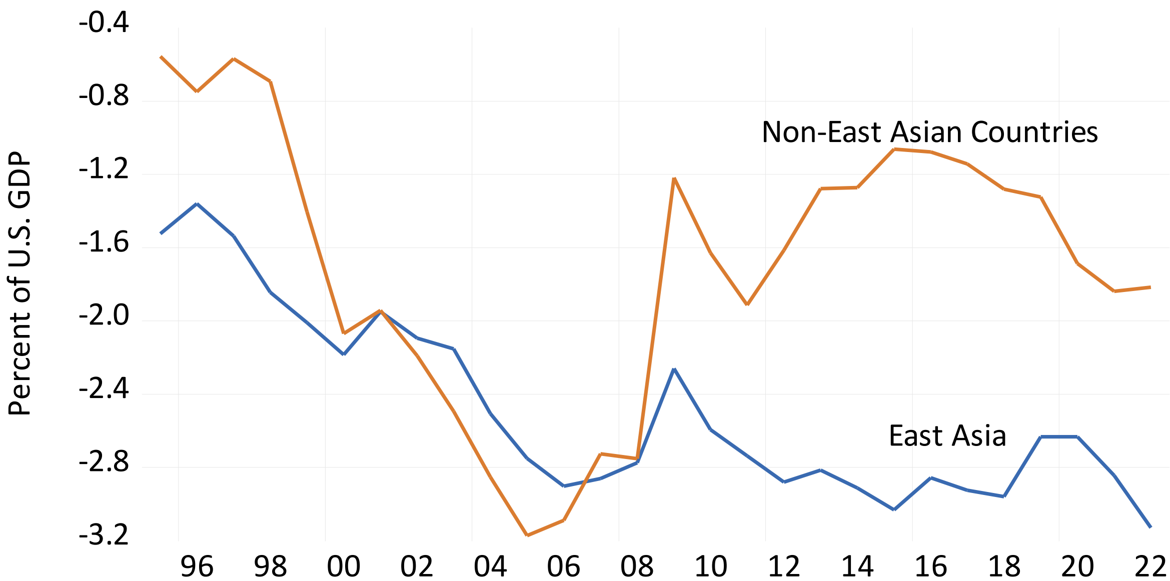

Figure 4. The U.S. Trade Deficit with East Asian and Non-East Asian Countries as a Percent of U.S. Gross Domestic Product

Notes: East Asia includes China, Japan, Malaysia, the Philippines, South Korea, Taiwan, Thailand, and Vietnam. Values for 2022 are forecasts using data from the first eight months of 2022.

Source: U.S. Census Bureau and calculations by the author.

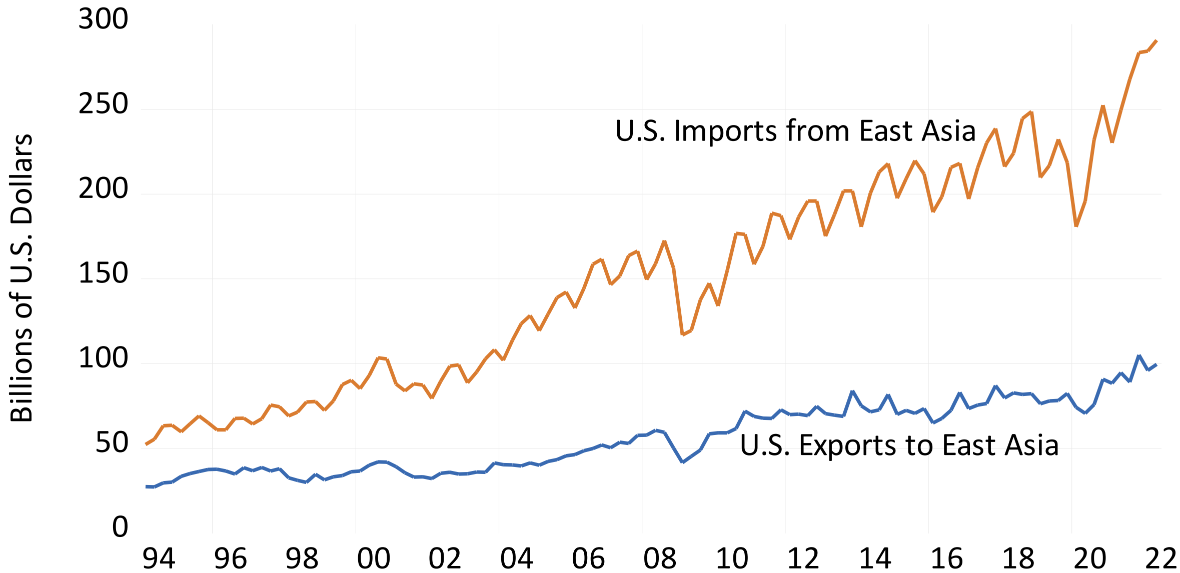

Figure 5. U.S. Imports from East Asia and Exports to East Asia.
Notes: East Asia includes China, Japan, Malaysia, the Philippines, South Korea, Taiwan, Thailand, and Vietnam.
Source: U.S. Census Bureau and calculations by the author.

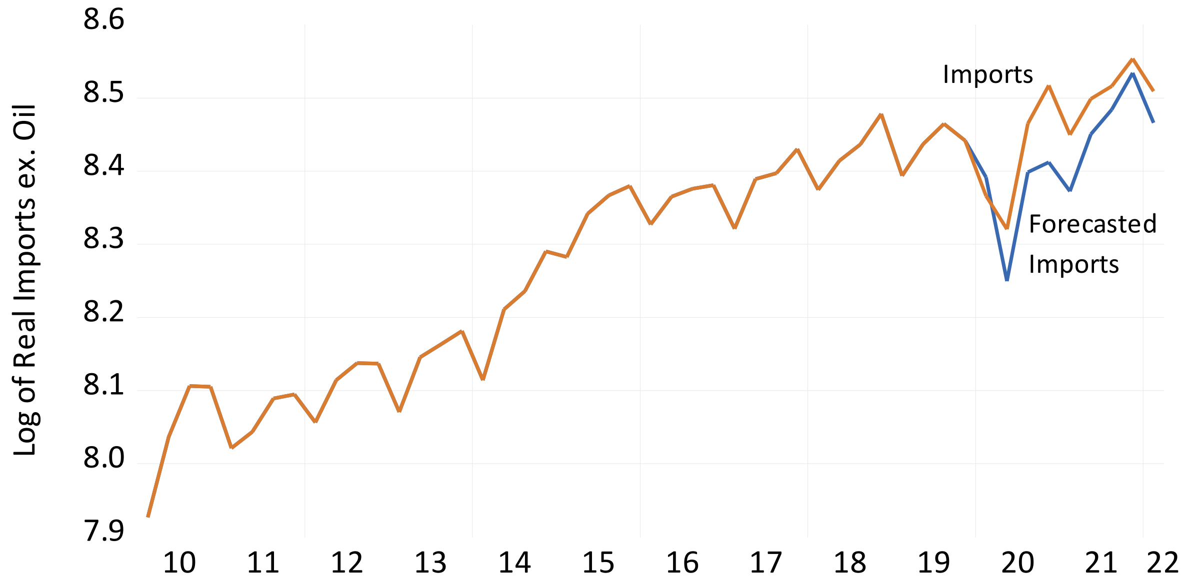

Figure 6. U.S. Forecasted and Actual Imports Excluding Oil since COVID-19 Began.
Source: CEIC database and calculations by the author.

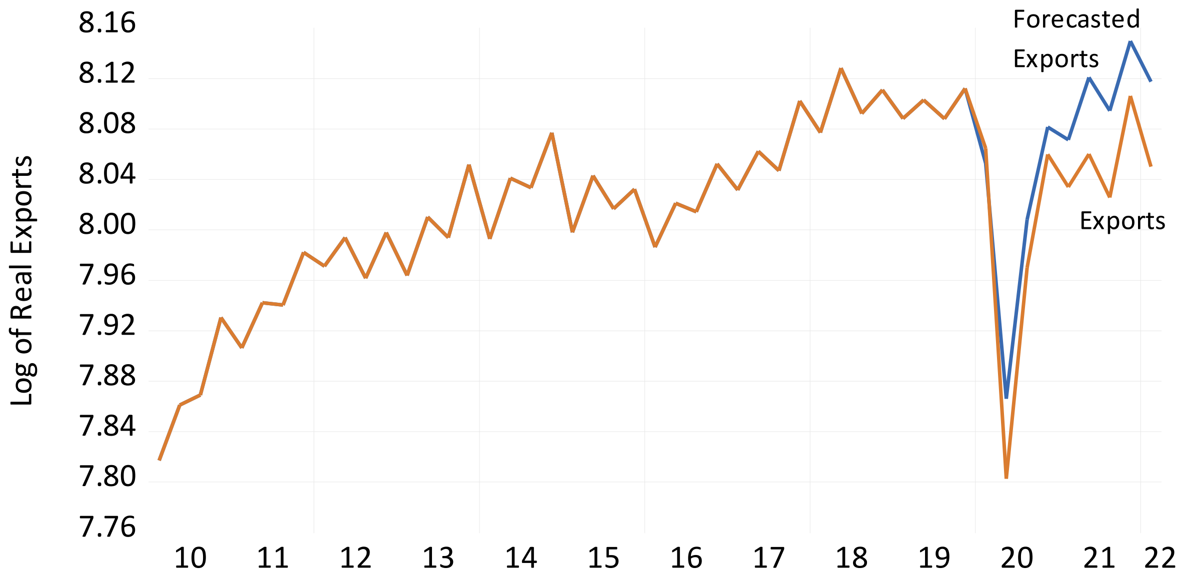

Figure 7. U.S. Forecasted and Actual Exports since COVID-19 Began.
Source: CEIC database and calculations by the author.

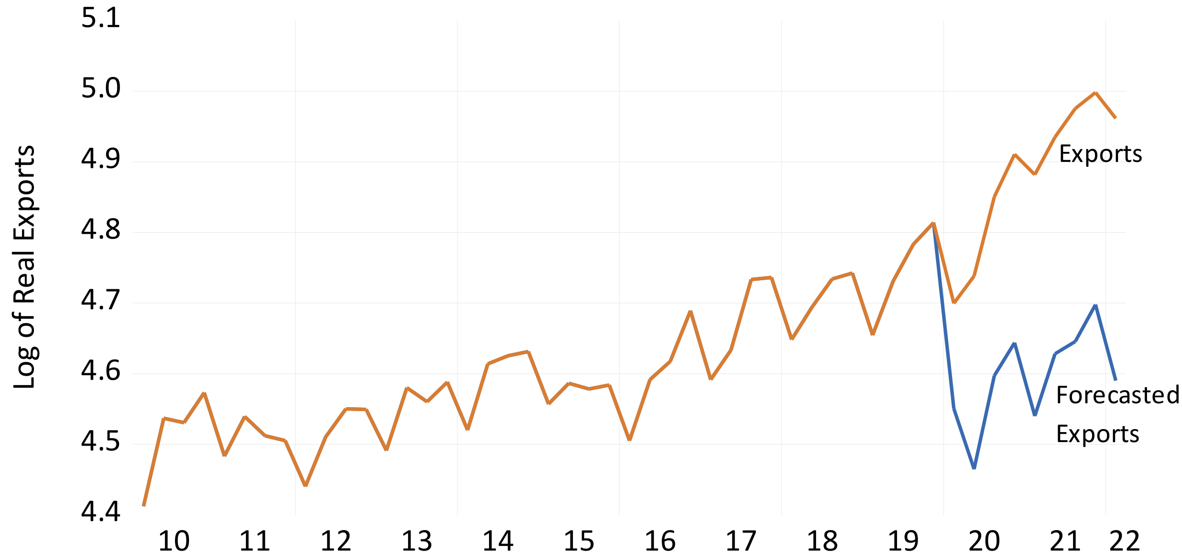

Figure 8. Taiwan's Forecasted and Actual Exports since COVID-19 Began.
Source: CEIC database and calculations by the author.

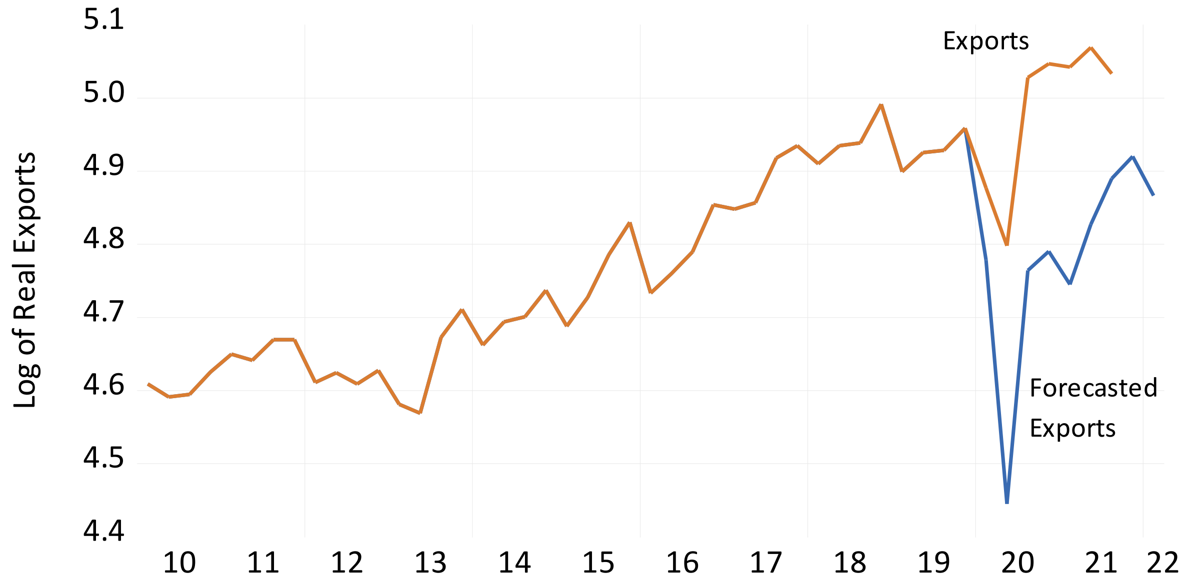

Figure 9. Malaysia's Forecasted and Actual Exports since COVID-19 Began.
Source: CEIC database and calculations by the author.

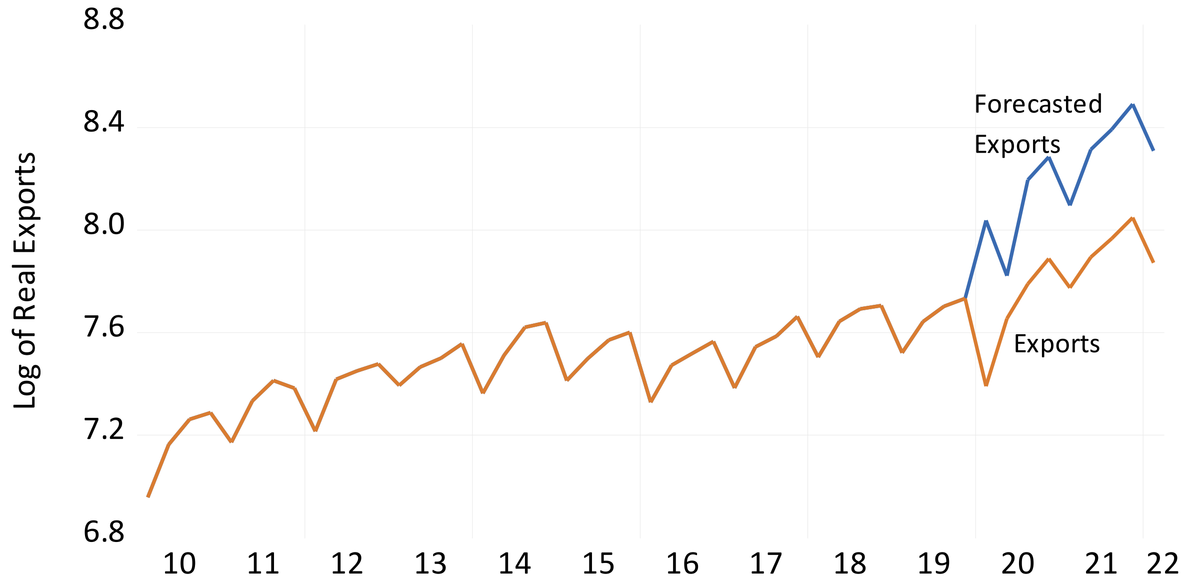

Figure 10. China's Forecasted and Actual Exports since COVID-19 Began.
Source: CEIC database and calculations by the author.

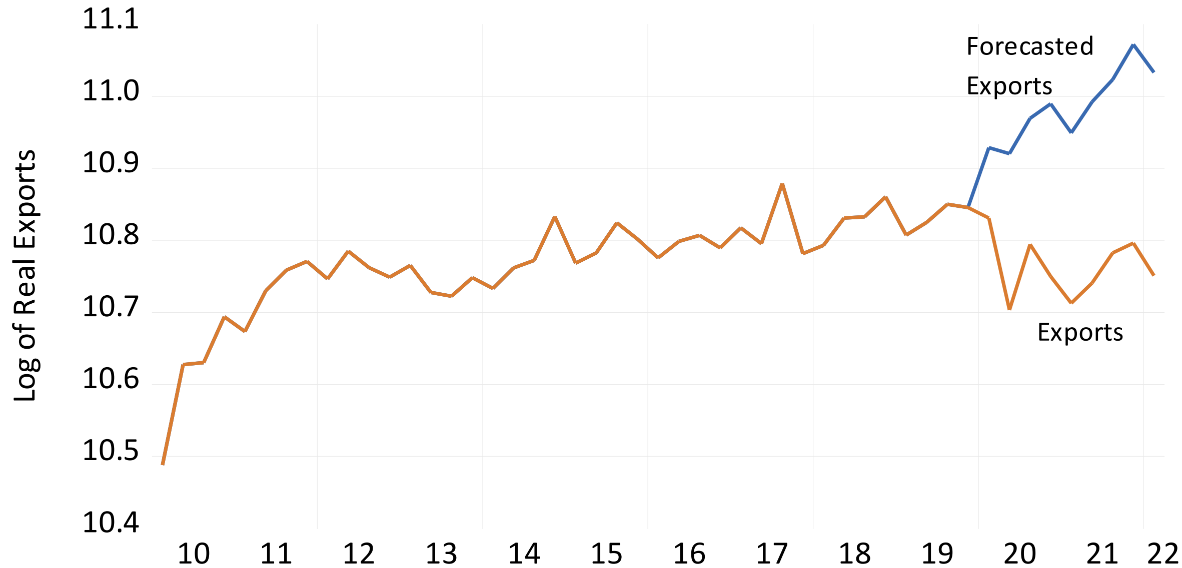

Figure 11. South Korea's Forecasted and Actual Exports since COVID-19 Began.
Source: CEIC database and calculations by the author.

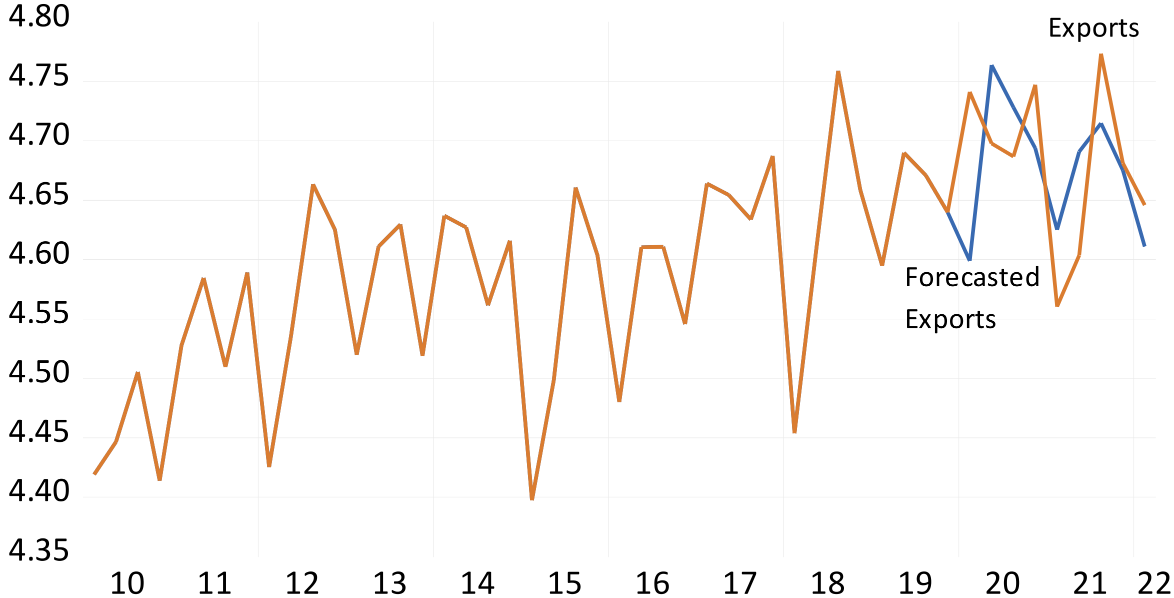

Figure 12. Japan's Forecasted and Actual Exports since COVID-19 Began.
Source: CEIC database and calculations by the author.

Table 1. Dynamic Ordinary Least Squares Estimates of East Asian Trade Elasticities

(1)	(2)	(3)	(4)	(5)	(6)	(7)
(2)	Exporting Economy	Real Exchange Rate Elasticity	Standard Error	Real GDP Elasticity	Standard Error	Adjusted R-squared
(3)	China	-2.03***	0.28	1.69*	0.90	0.992
(4)	Japan	0.12	0.12	-0.71	0.46	0.610
(5)	Korea	-0.54***	0.18	0.41	0.62	0.943
(6)	Taiwan	-0.37*	0.22	1.34***	0.17	0.936
(7)	Malaysia	-0.76***	0.25	3.48***	0.85	0.898
(8)	Thailand	1.61***	0.28	-1.01*	0.56	0.895

Notes: The table presents dynamic ordinary least squares estimates of trade elasticities for the countries listed in column (2). Real exports from each country are regressed on the country's consumer price index-deflated real effective exchange rate and on GDP in OECD countries. All of the regressions include quarterly dummies, a time trend, and two lags and two leads of the first-differenced right hand side variables. The data for Japan, Korea, and Taiwan extend from 1994Q1 to 2019Q4. For China, the sample is truncated in 2016Q3 to avoid distortions caused by the election of President Trump and the U.S.-China trade war. For Malaysia and Thailand, export quantity data are available starting in 2005Q1 and the sample extends from 2005Q1-2019Q4. Heteroskedasticity and autocorrelation corrected standard errors are reported in columns (4) and (6). *** (*) denotes significance at the 1% (10%) level.

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