

# Determinants of the U.S. Current Account

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**Abstract**—This article provides empirical evidence on the effect of domestic and international factors on the U.S. current account deficit. Linear dynamic regression and vector autoregression models are employed to estimate the relationships during the period from 1986 to 2011. The findings of this study suggest that the current and lagged private saving rate and foreign current account for East Asian economies have played a vital role in affecting the U.S. current account. Additionally, using Granger causality tests and variance decompositions, the change of the productivity growth and foreign domestic demand are determined to influence significantly the change of the U.S. current account. To summarize, the empirical relationship between the U.S. current account deficit and its determinants is sensitive to alternative regression models and specifications.

**Keywords**—Current account deficit, productivity growth, foreign demand, vector autoregression.

## I. INTRODUCTION

THE large and growing U.S. current account deficit is receiving increasing attention from policymakers and analysts. The current account deficit reflects the excess of a country's imports over its exports. The U.S. current account has been in deficit since the beginning of the 1980s, except for a brief period in 1991, and had grown to 6.6% of the gross domestic product (GDP) in the second quarter of 2006. Since then, a significant current account adjustment or reversal occurred until mid-2009. Recently, the current account deficit has again begun to worsen.

The current account measures the difference between domestic income and expenditures. Corresponding to the current account deficit, a country's citizens, businesses, and governments on net having to raise funds on international capital markets to finance the difference. Thus, by definition, in each period, U.S. net foreign borrowing equals the U.S. current account deficit, which in turn is closely linked to the imbalance in U.S. international trade. With the high and expanding current account deficit, the likelihood that the U.S. will lose the financing that covers the income-expenditures gap is higher than ever. Regarding real economic activity, the expanding deficit implies that the U.S. economy is losing global competitiveness. As a result, the growth in export-oriented manufacturing industries has been restrained, causing large adjustment costs to U.S. firms and their workers' incomes.

Understanding the influence of domestic and international factors of the U.S. current account deficit is crucial for understanding the effects of the deficit and for devising policies to address it.

Doing so enables examining the effects of the U.S. current account deficit on economic performance in the United States and on its trading partners. In other words, knowing the possible causes for the current account deficit is a vital step toward understanding the entire predicament. This article discusses five possible factors for the U.S. current account imbalance, namely the fiscal deficit, private saving rate, productivity growth in business sectors, weighted average of East Asian (EA) countries' domestic demand, and weighted average of EA countries' current accounts.

This article discusses the effect of these factors on the U.S. current account deficit. We begin in Section 2 with some background on the relationship between the current account balance and its determinants. Section 3 discusses the data and simple correlation coefficients as a preliminary step toward verifying the main empirical practices. Section 4 provides specifications of a nonstructural linear dynamic model and a vector autoregression model of the current account and presents the empirical findings.

## II. LITERATURE REVIEW

### A. Determinants of Current Account

In discussing the determinants of the U.S. current account deficit, we begin with the fiscal deficit. The commonly known twin deficits hypothesis proposed in the mid-1980s states that the current account deficit arises from a widening budget deficit. A budget deficit could worsen the current account balance because of the impact of higher government spending on aggregate demand. A larger fiscal deficit increases domestic aggregate demand, which leads to increases in domestic investment and the value of domestic currency if domestic interest rates escalate relative to foreign interest rates. According to the definition, the current account balance is the difference between a nation's saving and its investment. As a result, the U.S. current account deficit should worsen as investment increases.

Previous research on the relationship between the fiscal and current account balances has produced mixed findings for the link between the twin deficits. In one sense, [6] and [9], among others, have supported the twin deficits hypothesis in their cross country studies. For example, [6] provided evidence that a large fiscal deficit contributes to the current account deficit, but the reversal is not typically associated with a fiscal expansion. On the other hand, [1] and [5], among others, have shown that the support for this proposition is weak in practice. Their contributions concentrate on the fact that the current account deficit widened when the U.S. budget experienced a surplus between 1996 and 2000. A previous study [5] stated that "In sum, the recent experience both of the United States and of

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other countries, as well as the results of model simulations, lead me to conclude that the budget deficit has probably been only a small factor in the emergence of the large U.S. external imbalance.”

The structural decline of the private saving rates is the second factor of note that may reflect a change in household behavior or economic policy in the United States. Continued improvements in financial innovation makes it easier to borrow, thus facilitating more consumption. In turn, this leads to more imports from abroad and to widening the current account deficit. Nevertheless, the decline in the private saving rates could reflect a response to other developments in the economy. Distinguishing between structural and non-fundamental shocks is critical.

Reference [6] showed that the current account decline seems to be associated with a decline in national savings in most OECD countries. This supports the view that, in most countries, the current account deficit has largely been demand-driven, reflecting nominal shocks.

Third, the U.S. economy has experienced an improvement in labor productivity growth since the mid-1990s. This surge in productivity growth is viewed as having several important consequences. Higher productivity growth boosted perceived rates of return on U.S. investments, thereby generating capital inflows and a rise in investment. Then, expectations of higher returns raised financial asset prices, household income, and wealth. This, in turn, led to an increase in consumption and a decrease in savings. As a result, the improvement in productivity growth is inversely correlated with the current account deficit.

Although domestic factors have certainly affected the U.S. current account deficit, international factors may also play a role in explaining the facts [1], [5], [10]. In developing EA economies, the weakness in demand during the financial crises in the late 1990s may have motivated the authorities to pursue strategic export-led growth. This is usually implemented by keeping the exchange rates competitive relative to the U.S. dollar. As a result, numerous developing EA countries have been in current account surpluses since the end of the Asian financial crisis. In addition, the weakness of demand in the region supports the surpluses directly by restricting imports. Considering the possible explanations, the weakness in EA demand and the strong dollar reduce the U.S. exports and current account balance. Thus, the decrease in foreign domestic demand, particularly in developing EA countries, is the fourth factor that expands the U.S. current account deficit.

Reference [10] viewed the expansion of current account surpluses in EA economies as a medium term phenomenon, arguing that once domestic demand revives, the authorities likely allow their domestic currencies to appreciate, thus decreasing their net exports. Accordingly, the U.S. current account imbalance would move toward the direction of rebalancing. The factors for supporting this view include, first, that the share of investment in GDP is low and is likely to rise. Second, corporate balance sheets in EA developing countries have strengthened, excess capacity has likely eroded, and the health of the banking sector has improved, allowing higher

perceived rate of returns from investment. Third, saving rates in the region have already been edging down from their pre-crisis levels, with the potential for increased consumption. Finally, the fact that private international capital flows to the region are becoming attracted to the dynamic, market-oriented economies of the region should provide the opportunity for investments to replace net exports as a source of future economic growth.

Regarding the foreign demand effects on the adjustment in the current account deficit, [6] presented evidence that, over several years, a sustained surge in real export growth is the vital force in the continued improvement of the current account.

The current account balance in developing EA economies is the final factor that likely turn into capital inflows for the U.S. economy. As [1] stated, the rising productivity, low political risk, strong property rights, and a strong regulatory environment in the United States are the advantages that attracted foreign investors and capital during the late 1990s. Thus, by definition, U.S. net foreign borrowing has equaled the U.S. current account deficit in each period. The more capital inflows into the U.S. economy, the more the current account deficit worsens.

#### *B. Empirical Literature on Current Account*

The empirical literature on current account related issues can be roughly classified into three categories. First, [8] developed a structural empirical model in which the current account depends on exogenous global and country-specific shocks to productivity. Reference [8] empirically examined the relationship between the change in the current account and the change in investment for the G7 during the post-1975 period, focusing mainly on real disturbances and discovering that the current account appears to respond more to country-specific technology shocks than it does to global shocks. Reference [8] also found little response to either country-specific or global government spending shocks, which are viewed as nominal disturbances. According to the intertemporal model, a permanent country-specific productivity shock has a larger effect on the current account than on investment. Because permanent income rises above current income following a shock, domestic savings falls, and the current account falls more than investment rises. However, [8] revealed that country-specific technology shocks affect investment two or three times more than they affect the current account. The authors offered a resolution to this puzzle by arguing that the country-specific technology shock follows a near random walk rather than a random walk process.

Second, [2], [7], [11], and [12], among others, have constructed numerous structural VAR models to investigate the role of the current account in the international monetary transmission mechanism in the new open economy literature. For example, [7] extended the modeling strategy developed by [12] in three main directions. First, the bivariate model of [12] is extended to a three-variable specification, in which the change of the effective exchange rate, current account to output ratio, and relative output are included. Real and nominal shocks are identified through the long-run neutrality assumption of monetary disturbances on real exchange rates. Second, two

structural VAR models are then estimated separately for 14 OECD open-economy countries. Finally, the relationship between the degree of openness and current account dynamics is investigated. The main empirical findings indicate that nominal disturbances play a vital role in affecting the current account fluctuations.

Third, [3], [4], [9], among others, have focused on panel techniques to explore the determinants of the current account. Reference [9] used in- and out-of-sample criteria to provide evidence that the mean group estimator outperforms the fix-effect estimator. Additionally, three variables, namely the government budget balance, domestic output gap, and changes of the terms of trade, were found to be significant determinants of the current account imbalance.

### III. DATA AND SIMPLE CORRELATION

All of the data are quarterly and span the period from 1986Q1 through 2011Q1. The beginning point is dictated by the availability of a consistent data series for the cross-country variables, and the endpoint is determined by the latest available data. This study obtained the U.S. current account of the balance of payments (*CAUS*), fiscal deficit (*FDEF*), private saving rate (*PSR*), and productivity growth (*PROD*) from the FRED (Federal Reserve Economic Data) database. The current account was defined as the balance on current account (BOPBCA). The fiscal deficit was defined as the net government saving (TGDEF), and the fiscal deficit expanded when the net government saving declined. The private saving rate was defined as the personal saving (PSAVE) divided by the disposable personal income (DPI), and multiplied by 100. It is worth noting that the quarterly National Income and Product Accounts estimates in current dollars are presented at annual rates. The quarterly series are determined simply by dividing the annual rate by 4. This study defined the productivity growth as the log of the output per hour for all persons in the business sector (OPHPBS).

Quarterly data on GDP and the current accounts were obtained from the IFS (International Financial Statistics) for each EA country. The foreign domestic demand (*FDDEA*) was defined as the weighted average of the GDP growth rates for each EA country, using country shares in \$US GDP as weights. The foreign current account (*CAEA*) was defined as the weighted average of the current account for each EA country, using country shares in \$US GDP as weights.

We consider the selection of a proper country to be included in the variables, based on the following criteria. First, they represent top U.S. trade partners. For example, by ranking according to U.S. total export value for goods in 2007, top EA countries include China (3), Japan (4), South Korea (7), Taiwan (10), Singapore (11), Hong Kong (14), Malaysia (20), Thailand (27), and the Philippines (29). Second, the countries in which the available data on GDP and the current accounts are limited are excluded. Third, Japan is not included because it is an OECD developed country, in which the economic development and structure varies from the other countries. Furthermore, the GDP in Japan is much larger than that of the other aforementioned countries. The weights are biased toward

Japanese economic scale if it is included. As a result, four countries are identified as EA developing economies: the Philippines, Singapore, South Korea, and Taiwan.

Fig. 1 displays the time series plots for the levels of the six variables employed in this article. The U.S. current account balance (*CAUS*) is in the upper-left column, the private saving rate (*PSR*) is in the middle-left column, and the foreign domestic demand (*FDDEA*) is in the lower-left column. In the right column, the fiscal deficit (*FDEF*), productivity growth (*PROD*), and foreign current account (*CAEA*) are in the upper, middle, and lower position, respectively. As Fig. 1 illustrates, the data suggest a clear tendency for the four domestic variables *CAUS*, *PSR*, *FDEF*, and *PROD* over a time trend. The variables *CAUS* and *PSR* display apparent reversed adjustments during the period from 2006 to 2009. A period can probably be characterized as “the current account reversal”, as defined by [6]. The previously identified developing EA countries experienced two episodes of financial crises in 1997 and 2008. Accordingly, the weighted average of GDP growth (*FDDEA*) turned negative during these two periods.

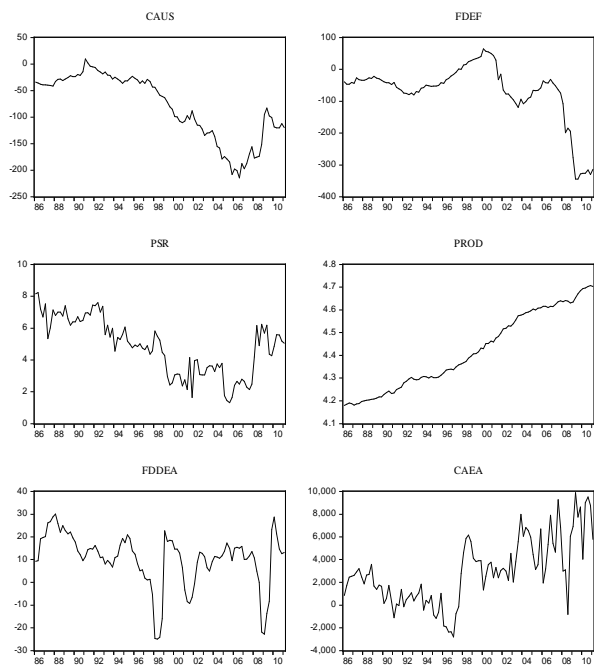


Fig. 1 Time series plots in levels

Table I presents simple correlation coefficients relating the U.S. current account to the other variables. Sample Period I is the full sample period from 1986Q1 to 2011Q1. Sample Periods II and III are the subsamples in which the current account improves and deteriorates, respectively. The empirical findings are consistent across alternative sample periods. The U.S. current account is strongly positively correlated with the private saving rate and negatively correlated with the productivity growth and foreign current account, as expected. The correlation relationships between the U.S. current account and the fiscal deficit and foreign domestic demand are positive

but weak. Finally, though not shown in TABLE I, the productivity growth is highly correlated with the fiscal deficit, private saving rate, and foreign current account. To avoid the multicollinearity problem among the explanatory variables, the productivity growth is omitted in the following current account equation.

TABLE I  
SIMPLE CORRELATION COEFFICIENTS

Variable <sup>a</sup>	Sample I	Sample II	Sample III
<i>FDEF</i>	(+)	0.26	0.31
<i>PSR</i>	(+)	0.74	0.67
<i>PROD</i>	(-)	-0.87	-0.89
<i>FDDEA</i>	(+)	0.10	0.30
<i>CAEA</i>	(-)	-0.61	-0.61

<sup>a</sup>The expected signs are in the parentheses.

#### IV. THE CURRENT ACCOUNT REGRESSION EQUATION

##### A. Level Regression

We begin by specifying a nonstructural linear dynamic model for the U.S. current account (*CAUS*) conditional on the fiscal deficit (*FDEF*), private saving rate (*PSR*), foreign domestic demand (*FDDEA*), and foreign current account (*CAEA*). Because the current account can adopt both positive and negative values, it is maintained in non-log form and a constant is added to allow for a deterministic trend. Equation (1) is the estimating equation for the U.S. current account.

$$CAUS_t = \beta_0 + \beta_{11}FDEF_t + \beta_{12}FDEF_{t-1} + \beta_{21}PSR_t + \beta_{22}PSR_{t-1} + \beta_{31}FDDEA_t + \beta_{32}FDDEA_{t-1} + \beta_{41}CAEA_t + \beta_{42}CAEA_{t-1} + \varepsilon_{1t} \quad (1)$$

A priori, we expect  $\beta_{11}$  and  $\beta_{12}$  to be positive, because increases in the current and lagged fiscal deficit deteriorate the U.S. current account. In addition, we also expect  $\beta_{21}$ ,  $\beta_{22}$ ,  $\beta_{31}$ , and  $\beta_{32}$  to be positive, because increases in the current and lagged private saving rate and foreign domestic demand improve the U.S. current account. Because of the inverse relationship between the U.S. current account and foreign current account, we expect  $\beta_{41}$  and  $\beta_{42}$  to be negative. Equation (1) is estimated using the ordinary least squares method.

The results for estimating (1) are shown in TABLE II. Column I of TABLE II presents the results corresponding to the baseline current level model in which the lagged explanatory variables are not included. First, the adjusted  $R^2$  is 0.71, meaning that the overall goodness of fit of the model is high. For the effect of the fiscal deficit on the U.S. current account, the coefficient estimate is 0.14, which is significantly positive at the 1% significance level. The estimate indicates that current account deficit increases by \$0.14 billion in response to \$1 billion increase in the fiscal deficit. This finding is consistent with the empirical results reported in [5], which concluded that “the budget deficit has probably been only a small factor in the emergence of the large U.S. external imbalance.” For the effect of the private saving rate on the U.S. current account, the coefficient estimate is 23.67, which is significantly positive at the 1% significance level, as the theory predicts. The estimate

TABLE II  
ESTIMATION RESULTS: CURRENT ACCOUNT EQUATION  
IN LEVELS SPECIFICATION

Variable <sup>a</sup>	I <sup>b</sup>	II
<i>Constant</i>	-165.37***	-166.37***
<i>FDEF<sub>t</sub></i>	(+) 0.14***	0.33*
<i>FDEF<sub>t-1</sub></i>	(+) 0.01	-0.21
<i>PSR<sub>t</sub></i>	(+) 23.67***	11.14***
<i>PSR<sub>t-1</sub></i>	(+) 0.01	13.97***
<i>FDDEA<sub>t</sub></i>	(+) -0.22	0.86*
<i>FDDEA<sub>t-1</sub></i>	(+) -0.01	-1.39***
<i>CAEA<sub>t</sub></i>	(-) -5.8e-3***	-3e-3*
<i>CAEA<sub>t-1</sub></i>	(-) -0.01	-4e-3**
Adjusted $R^2$	0.71	0.79
<i>F-stat</i>	8.83	8.83
<i>Prob(F)</i>	0.00	0.00

<sup>a</sup>The expected signs are in the parentheses.

<sup>b</sup>\*\*\*, \*\*, and \* are 1%, 5%, and 10% significance level, respectively.

indicates that current account deficit increases by \$23.67 billion in response to a 1% decrease in the private saving rate. The foreign domestic demand does not statistically significantly affect the U.S. current account. Finally, the foreign current account affects the U.S. current account significantly negatively in support of the view mentioned in Section 2.

Column II of Table II presents the results corresponding to the dynamic model in which the lagged explanatory variables are included. First, the adjusted  $R^2$  is 0.79, meaning that the overall goodness of fit of the dynamic model is high. In addition, a Wald test is employed to test the null hypothesis that the coefficients of the lagged explanatory variables are jointly equal to zero; that is,  $H_0: \beta_{12} = \beta_{22} = \beta_{32} = \beta_{42} = 0$ . The *F*-statistics is 8.83 and its *p* value is 0.00. The result indicates that the null hypothesis is rejected at the 1% significance level, meaning that the lagged explanatory variables are significant determinants jointly. The effects of the current variables on the U.S. current account are consistent with those obtained from the baseline model. The only exception is that the current foreign domestic demand significantly positively affected the U.S. current account. For the lagged explanatory variables, the empirical evidence shows that the coefficient estimate of *PSR<sub>t-1</sub>* is significantly positive at the 1% significance level and the coefficient estimate of *CAEA<sub>t-1</sub>* is significantly negative at the 1% significance level, as expected. The coefficient estimate of *FDDEA<sub>t-1</sub>* is significantly negative at the 1% significance level. However, the coefficient estimate of *FDEF<sub>t-1</sub>* is insignificant at any conventional significance level.

It is possible that the number of lags for the explanatory variables can affect the results. Therefore, (1) is reestimated using two lags of all four explanatory variables. With only one exception, the second lagged explanatory variables are statistically insignificant at any conventional level. A second robustness test involves reestimating (1) for distinct sample periods. Two dummy variables are constructed to capture the possibly varying responses of the U.S. current account balance to the explanatory variables. The first dummy variable is equal to one when the current account improves and equal to zero when it deteriorates. The second dummy variable is equal to one when the current account deficit is large (that is, when the deficit is above its average) and equal to zero otherwise.

Neither of the two dummy variables is statistically significant. This finding contradicts the empirical evidence reported in [6], in which most of the macroeconomic and financial variables were determined to act differently before and after a current account reversal.

### B. First Differencing Regression

The preliminary unit-root test is applied to each variable in (1). Unit-root tests show whether a time series variable is stationary. If unit roots are found in time series variables, these variables are not stationary, implying that first differencing of the non-stationary variables is necessary. This transformation turns a non-stationary variable into a stationary variable. To test for the presence of possible unit roots in *CAUS*, *FDEF*, *PSR*, *FDDEA*, and *CAEA*, the Augmented Dickey-Fuller (ADF) tests are employed. The Schwarz information criterion is used to select the appropriate lag length. Due to the quarterly nature of the data, the maximal lag length is set at four. The test statistics show that *CAUS*, *FDEF*, and *PSR* all have a unit root. These variables are integrated of degree one, that is, *I*(1) processes. Initially differencing these variables means that their changes are effectively specified to achieve stationarity. The test statistics show that neither *FDDEA* nor *CAEA* has a unit root. They are integrated of degree zero, that is, *I*(0) processes.

Fig. 2 displays the time series plots for the first differences of the four *I*(1) variables. The change of the U.S. current account (*DCAUS*) is in the upper-left column, and the change of the private saving rate (*DPSR*) is in the lower-left column. The change of the U.S. fiscal deficit (*DFDEF*) is in the upper-right column, and the change of the productivity (*DPROD*) is in the lower-right column. In the late 1990s and early 2000s, the U.S. current account deficit continuously worsened, when the changes of current account were below zero for a long period. The changes of current account became more volatile during the period from 2006 to 2009, in which “the current account reversal” might have occurred.

Equation (2) is the estimating equation for the U.S. current account in the first differencing specification.

$$\begin{aligned} \Delta CAUS_t = & \gamma_0 + \gamma_{11} \Delta FDEF_t + \gamma_{12} \Delta FDEF_{t-1} \\ & + \gamma_{21} \Delta PSR_t + \gamma_{22} \Delta PSR_{t-1} + \gamma_{31} FDDEA_t \\ & + \gamma_{32} FDDEA_{t-1} + \gamma_{41} CAEA_t + \gamma_{42} CAEA_{t-1} + \varepsilon_{2t} \end{aligned} \quad (2)$$

The results for estimating (2) are shown in Table III. Column I of Table III presents the results corresponding to the first differencing model, in which the lagged explanatory variables are not included. The adjusted  $R^2$  is 0.08, meaning that the model fits the data poorly. The coefficient estimates are either statistically insignificant or at the wrong sign. Column II of TABLE III presents the results corresponding to the dynamic model, in which the lagged explanatory variables are included. Again, the estimation performs poorly. Consequently, the empirical relationship between the U.S. current account deficit and its determinants is sensitive to alternative specifications.

### C. Vector Autoregression

In this section, the standard Vector Autoregression (VAR) methodology is employed to estimate the impacts of domestic

TABLE III  
ESTIMATION RESULTS: CURRENT ACCOUNT EQUATION  
IN FIRST DIFFERENCES SPECIFICATION

Variable <sup>a</sup>	I <sup>b</sup>	II
<i>Constant</i>	-0.27	-0.25
$\Delta FDEF_t$	(+)	-0.16**
$\Delta FDEF_{t-1}$	(+)	-1e-3
$\Delta PSR_t$	(+)	-3.21**
$\Delta PSR_{t-1}$	(+)	1.12
$FDDEA_t$	(+)	-0.11
$FDDEA_{t-1}$	(+)	0.04
$CAEA_t$	(-)	-1e-5
$CAEA_{t-1}$	(-)	-1e-3**
Adjusted $R^2$	0.08	0.09
<i>F-stat</i>		1.27
<i>Prob(F)</i>		0.29

<sup>a</sup> The expected signs are in the parentheses.

<sup>b</sup> \*\*\*, \*\*, and \* are 1%, 5%, and 10% significance level, respectively.

and international determinants on the U.S. current account. In particular, two VAR models are specified. The first VAR model (VAR1) contains the U.S. current account and three domestic factors (*DCAUS*, *DFDEF*, *DPSR*, *DPROD*). This model uses first differences of the variables, making it the difference stationary specification. Under this specification, series possess stochastic trends in the sense that the fluctuations are not mean-reverting over time. The impact of a shock is permanent. The second VAR model (VAR2) contains the U.S. current account and two international factors (*DCAUS*, *FDDEA*, *CAEA*).

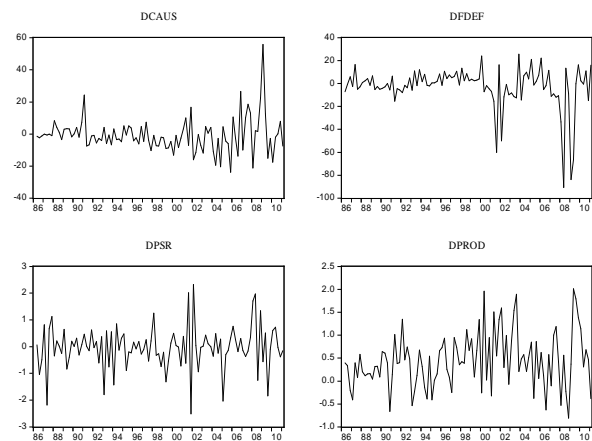


Fig. 2 Time series plots in differences

Table IV reports the Granger causality test results for the VAR models that separately include domestic and international factors. To conserve degrees of freedom, all estimations use two lags for each variable. Because the focus is on the relationship with the U.S. current account, the table reports only results for this variable. The productivity growth is found to influence significantly the behavior of the U.S. current account in the VAR1 model. This result indicates that, under a difference stationary specification, this impact is described as being permanent. The other two domestic factors do not Granger cause the U.S. current account. However, the fiscal

deficit is influenced by the current account. In the VAR2 model, concerning the international factors, only the foreign domestic demand for EA countries is determined to influence significantly the U.S. current account, and not vice versa.

Variance decompositions from the different VAR models are calculated. Variance decompositions indicate whether a change in these variables is quantitatively essential in affecting the U.S. current account. The ordering used in the VAR1 model is *DPROD*, *DFDEF*, *DPSR*, and *DCAUS*. The ordering used in the VAR2 model is *FDDEA*, *CAEA*, and *DCAUS*. These orderings reflect an a priori belief that there is little contemporaneous feedback from the U.S. current account deficit to the other variables.

TABLE IV  
GRANGER CAUSALITY TESTS

Variable			VAR1 <sup>a</sup>	VAR2
<i>DFDEF</i>	does not		3.69	
<i>DPSR</i>	Granger cause	<i>DCAUS</i>	1.86	
<i>DPROD</i>			18.90***	
	does not	<i>DFDEF</i>	16.54***	
<i>DCAUS</i>	Granger cause	<i>DPSR</i>	0.22	
		<i>DPROD</i>	0.36	
<i>FDDEA</i>	does not	<i>DCAUS</i>		12.91**
<i>CAEA</i>	Granger cause			0.58
<i>DCAUS</i>	does not	<i>FDDEA</i>		0.17
	Granger cause	<i>CAEA</i>		0.35

<sup>a</sup> \*\*\*, \*\*, and \* are 1%, 5%, and 10% significance level, respectively.

TABLE V  
VARIANCE DECOMPOSITIONS OF DCAUS

Period	VAR1			VAR2	
	<i>DPROD</i>	<i>DFDEF</i>	<i>DPSR</i>	<i>FDDEA</i>	<i>CAEA</i>
1	0.42	1.11	2.85	0.03	3.35
2	15.50	3.36	3.36	11.06	3.10
3	16.79	4.01	3.31	11.36	3.41
4	17.57	3.98	3.49	11.61	3.72
5	17.67	4.04	3.48	12.59	3.99
6	17.68	4.06	3.48	13.46	4.09
7	17.67	4.08	3.48	14.01	4.14
8	17.68	4.09	3.48	14.28	4.15

Table V reports the variance decompositions in an eight-quarter period. First, regarding the results based on the VAR1 model, the variance decompositions indicate that shocks to the productivity growth (*DPROD*) account for approximately 15 to 17 percent of the variation in the U.S. current account. By contrast, the negligible impact from shocks to the other two domestic factors account for only approximately 3 to 4 percent of the variation in the U.S. current account. Second, regarding the results based on the VAR2 model, the variance decompositions indicate that shocks to the foreign domestic demand (*FDDEA*) account for approximately 11 to 14 percent of the variation in the U.S. current account, whereas shocks to the foreign current account (*CAEA*) explain only approximately 3 to 4 percent of the variation in the U.S. current account.

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