

# Commentary: Perspectives on OECD Economic Integration: Implications for U.S. Current Account Adjustment

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## **Introduction**

**1**

This is an interesting paper for a number of reasons. It focuses on real (trade-related) economic integration and considers in an original and very promising way the role that trade costs may have in explaining why we observe so much home bias in goods spending, in the holding of assets, and in the financing of investment expenditures. These costs are also emphasised in examining the question why prices adjust so slowly to exchange rates changes. All this is done without bringing into play the efficiency, or lack of efficiency, of international asset markets. And the results summarized in Section 3 of the paper, and extensively examined in the recent and already celebrated as path-breaking article by the same authors for the NBER Macroeconomics Annual 2000,<sup>1</sup> are very interesting indeed. Relatively small international trading costs (from 10 to 25 percent higher than trading domestically) appear to be sufficient to explain a large part of a number of well-known puzzles in international macroeconomics. What is most intriguing is that these results are obtained by Obstfeld and Rogoff in their NBER article on the basis of simple, stylized, choice-theoretic modeling of (mostly) consumer (at times, but not always, intertemporal) decisions, where what really matters, jointly with the trade costs, are essentially the representative agent's elasticities of substitution between home and foreign goods.

The basic result is that “most global markets are far less integrated than their domestic counterparts.” This is an important result at a time when so much attention is devoted to the implications (the benefits for many, the costs for some) of globalization. Once the main factors behind such limited economic integration seem to have been identified, what are then the most important policy implications? One may guess that many may be drawn from the research pioneered by Obstfeld and Rogoff. In Section 4 of the paper presented at this conference, they choose to examine those related to the consequences for the real exchange rate of what they consider to be “the inevitable reversal of the U.S. current account.” Again, the model used is a very simple one, albeit based this time on the choice by a representative consumer between traded and non-traded goods, rather than, as in their NBER piece, on one where all goods are potentially tradable subject to various trade costs. The spirit of the previous analysis is captured, however, by substantially reducing the share of potentially tradable goods that enter in their simple model (and identified as GNP minus public and private services and construction) from 36 to 25 percent. Under this assumption, the required change in the relative price of U.S. and foreign goods to achieve a significant improvement in the current account while still maintaining full employment, becomes rather substantial with possibly “enormous nominal exchange rate effects in the short run.”

In my discussion, I’ll first comment briefly on the trade cost effects. I will refrain from entering into a methodological discussion, but will concentrate on discussing some evidence on, and possible implications of, recent trends in market openness. The important question of the consequences for stabilization policies of a rising trend in economic integration and of a progressive reduction of market segmentation (albeit at a pace that is likely to be considered low by Obstfeld and Rogoff in the light of the puzzles that they discuss and which still seem to prevail) would come naturally at this point. I will then consider the issue of the U.S. current account adjustment, discussing the claims about its sustainability, as well as the results in terms of real exchange rate adjustment.

In particular, I will compare these results with some quantitative

evidence that is gauged by simulating a linked macroeconomic model of the world economy (the OECD Interlink model), one of the “old-fashioned large-scale black-box macro models” referred to in the paper. Some methodological discussion here should be in order, coupled with the observation that Obstfeld and Rogoff’s analysis and results, while plausible, seem to be incomplete. In particular, the use of an “old-fashioned” macroeconomic model may shed some light on two issues that Obstfeld and Rogoff do not consider in their paper: (a) the implications of different shocks on current account adjustment, once Hamlet *i.e.* stabilization policies — is brought back in the play; (b) the consequences of such an adjustment on, and the related feedback from, other countries and regions of the world, is an issue that I believe should deserve attention in general, and, in particular, in a Conference on Global Economic Integration.

## The openness of OECD economies

2

As Obstfeld and Rogoff observe, if judged on the basis of the average level of tariff rates, costs of trade do not appear to be particularly high. In the major OECD areas, they range from about 3.5 percent in Japan to 7.5 percent in the European Union (5 percent in the United States). Overall, the trend has been downward in the last decades, even if much higher rates are observed for some products—notably textiles, and for others, such as food, beverages, and tobacco—in part, linked to the “tariffication”<sup>2</sup> of certain quantitative border restrictions in the mid-1990s, which resulted in a sharp increase. Also, as a result of this process, in some countries average overall tariff rates are still in double digits (12 percent in Canada, 18 percent in Mexico, and 22 percent in Norway in 1996).<sup>3</sup>

### *Trends in market openness*

2.1

Although there is enough information on the level of tariffs and there is also evidence that direct quantitative import controls have declined substantially, much less is known on the quantitative importance of non-tariff barriers to trade. There are, in fact, claims that they may be gaining importance as a means of protecting domestic producers of goods and services and restraining access to interna-

tional markets. These measures include countervailing and anti-dumping duties, voluntary export restraints, technical barriers to trade resulting from regulations, minimum standards, and certification systems. Although some of these measures are legitimate, at times they may be used (or threatened to be used) as protectionist instruments. The available evidence consists mostly in the frequency of their use, as little is known about the overall level of restrictiveness associated with them. An indicator of some interest is the import coverage ratio, defined as the share of a country's own imports that is subject to a particular non-tariff barrier. In 1996, this ratio was estimated to be 7.7 percent in the United States, 6.7 percent in the European Union, and 7.4 percent in Japan. Overall, these do not seem to be very large figures, especially if we observe that the trend is markedly down (in 1988 the ratio was equal to 16.7 percent in the United States, 13.2 percent in the European Union and 8.6 percent in Japan.)

Other indirect measures of import penetration and exposure to foreign competition are also of some interest. While they show wide variations across countries, sectors and products, the ratios of manufacturing imports to apparent consumption of manufacturing goods (domestic production minus exports plus imports) were in 1996 equal to 18 percent in the United States, 13 percent in the European Union (net of intra-EU trade) and 9 percent in Japan. These do not look like large figures. This fact is confirmed if we consider an (*ex post*) indicator of the overall exposure to foreign competition for manufacturing industries (considering both imports and exports).<sup>4</sup> In 1996, the figures were about 30 percent in the United States, 28 percent in the European Union, and 21 percent in Japan. It should be noticed, however, that both in the case of import penetration and of exposure to foreign competition the measures reveal a substantial increase over time.<sup>5</sup>

Indeed, market openness has increased significantly over the past fifty years. The volume of world merchandise trade is today sixteen times what it was in 1950 and its share of global GDP has almost tripled. Trade in services has also grown rapidly in the last fifteen years or so. Openness has, however, evolved differently across the major OECD areas. Table 1 shows the evolution since 1970 of the average

**Table 1**  
**Trade Openness**

Average of imports and exports as a percentage of GDP				
	1970	1980	1990	1999
United States	5.4	10.2	10.2	12.2
European Union <sup>a</sup>	8.5	11.4	9.5	12.7
Japan	10.2	14.1	10.3	9.5

<sup>a</sup> Net of intra-EU trade. Throughout the time period shown, the European Union is defined as the current fifteen member states. The correction factor for intra-EU trade is based on intra-EU trade for goods only, due to insufficient data on services trade.  
Source: OECD.

share of imports and exports of goods and services in GDP. While still relatively low in 1999, at between 12 and 13 percent in both the United States and the European Union and at 9.5 percent in Japan, trade openness has increased remarkably in the European Union and especially in the United States. In Japan, however, after rising in the 1970s and the first half of the 1980s (also as a result, given the high dependence of the Japanese economy on imported energy, of the exceptional rise in the price of oil in that period), it returned to its 1970 level in the mid-1980s and has remained rather stable since then.

All this appears to confirm Obstfeld and Rogoff's claim that even within the OECD the degree of international economic integration still seems to be much lower than the one observed within national boundaries. However, the upward trend in market openness is certainly very pronounced. This has presumably reflected a parallel reduction in the trade costs emphasised in their paper. Obstfeld and Rogoff's favored educated guess for these costs is a value of about 25 percent. Compared with explicit tariff rates, this is between four and five times as large, but it probably does not represent an unrealistic estimate. To this would correspond, according to the authors, a share of tradables over total domestic output between 20 and 25 percent

(against the 36 percent that one obtains deducting private and public services as well as construction from the overall value added). This is certainly a very rough estimate, one that would deserve careful statistical confirmation. Judging, however, from the above market openness measures, I don't think that the figure is particularly off the mark.

### *Policy implications*

### 2.2

I have so far concentrated my remarks on market openness rather than on a discussion of the puzzles examined by Obstfeld and Rogoff and their claim that, to a large extent, a unifying explanation may be found once the role of trade costs is carefully considered. This claim has already been subject to a thorough discussion of their NBER article by Charles Engel and Olivier Jeanne, and it seems natural here to refer to it rather than providing a new one. The basic point seems to me to be that even if trade costs may be used in an innovative way to help understand some puzzling observed international macroeconomic regularities, the claim that imperfections in capital markets might be of second order importance seems too extreme.<sup>6</sup> But two questions naturally pose themselves at this point: *i*) what are the policy implications of the relatively low levels of global economic integration? and *ii*) what might we expect in terms of its medium-term evolution? I will consider the second question first.

I would start by observing that even if a 25 percent estimate for international trade costs may be considered realistic, and judged relatively moderate, it has to be compared with the much smaller, possibly close to zero, costs of trading within national boundaries. The issue is how far these costs may be reduced in a medium term of, say, five to ten years. My guess is that the reduction might be non-negligible. It is likely that this will require means other than changes in trade policy regimes. Policy reforms will be needed in areas such as competition policies, investment barriers which favor local producers or limit the ability of foreign firms to establish local production or distribution facilities, government procurement practices, discriminatory subsidies, tax concessions, restrictions on land use and ownership. Progress in all these fields at the international level is certainly taking place.<sup>7</sup> While they help explain much of the current low levels

of international trade in a number of OECD countries,<sup>8</sup> improvement in regulatory policies will certainly contribute to the reduction of the costs of trade. As reforms appear to be under way in a number of countries, it might be expected that their effects should be visible before too long.

At the same time, Obstfeld and Rogoff are certainly correct in pointing to the limits of a sharp distinction between traded and non-traded goods, as most goods (and services) are likely to have a tradable component. But this probably leads one to think that the “tradable share” of GDP might increase in the medium term, and pass the 20 to 25 percent figure advanced in their paper. Even the upper bound from which they start (GDP minus services and construction) might be considered conservative as more and more services are traded internationally. It is certainly possible that the information and communication (“new economy”) improvements will end up making the trade costs from which Obstfeld and Rogoff derive their estimate of the traded GDP share much lower than they currently are. Also, in manufacturing there appears to be ample space to reduce price levels and mark-ups in a number of European countries and in Japan,<sup>9</sup> and this may be favored by the exceptional ICT improvements that we are experiencing.

This leads us to the question on the policy implications. Those for the U.S. current account adjustment are extensively dealt with in Obstfeld and Rogoff’s paper, and I will turn to them in the next section. But what can we say about the implications for stabilization policies? And can we ignore the role that capital markets might play in this case? If, as Obstfeld and Rogoff observe, “as goods markets become better integrated, asset market integration will follow to a substantial extent,” will this lead to a higher or lower degree of economic fluctuations induced by the openness and integration of national economies? These are difficult questions. If we follow the analysis by Obstfeld and Rogoff, we should observe quicker responses of prices and quantities to changes in exchange rates. At the same time, as trade costs are reduced and economies become “more tradable,” there should be less need of large exchange rate movements to correct imbalances in the balance of payments. All this would probably

reduce, perhaps substantially, the need for monetary policy actions directed at countering inflation (deflation) effects from excessive depreciation (appreciation), especially if trade cost reductions are achieved through substantial progress in regulatory reform and, therefore, in relative price flexibility. The latter, however, is no doubt a relatively slow process. As the performance and integration of capital markets improve, further increases in financial flows might then strengthen exchange rate variability. This would, therefore, still call for an important role for monetary (and fiscal) policy in macroeconomic stabilization and to achieve price stability.

### **U.S. current account adjustment**

**3**

Given the current levels of integration of global markets, and, in particular, the relatively small “tradable” share of U.S. GDP, Obstfeld and Rogoff observe that current account deficits of the magnitude currently recorded in the United States may have a substantial impact on the relative price of U.S. and foreign goods, especially in the short run. In fact, they observe that maintaining the U.S. current account deficit at the current levels would lead to sustainability problems and this would sooner or later (but likely sooner than later) imply a possibly sharp adjustment of the dollar’s real effective exchange rate. On the basis of a simple model of consumer choice between tradable and non-tradable goods, they quantify the required (equilibrium) real exchange rate adjustment to be around 12 percent, with a short-run depreciation in excess of 24 percent (given the exchange rate “pass-through” in import prices), and possibly double if price stickiness is taken into account (and monetary policy allows the very large necessary dollar depreciation to maintain full employment, inflationary pressures notwithstanding). I will first address the sustainability issue, and then turn to a discussion of the level and implications of the real exchange rate adjustment.

#### *Sustainability*

*3.1*

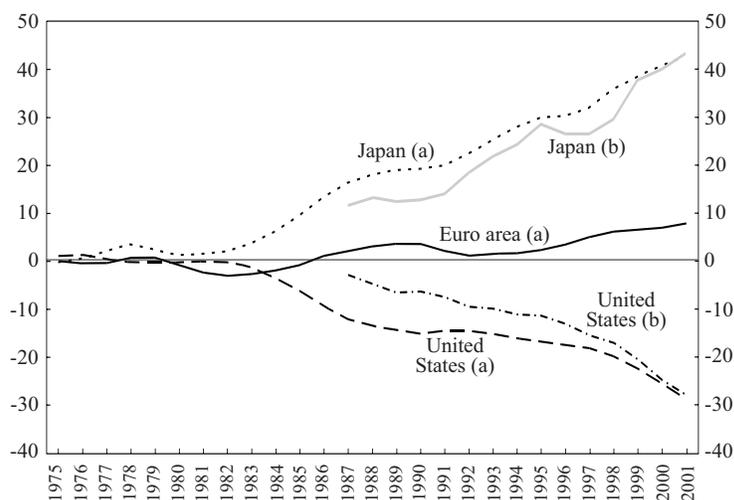
Discussion on issues such as the government deficit, domestic borrowing, the current account balance, or foreign borrowing inevitably involve some quantitative sense of what constitutes a sustainable

level. Like Obstfeld and Rogoff, few commentators would argue that the United States' economy could indefinitely maintain its current account deficit. Yet, as theory does not provide us with an adequate basis to define and measure what constitutes a sustainable level, it is not possible to evaluate the sustainability of balance of payment positions against a benchmark. The best that can be done is to use arbitrary, albeit plausible estimates. This is what Obstfeld and Rogoff do. Specifically, they argue that if current GDP growth rates are maintained and the current account deficit remains at 4.4 percent of GDP, then net foreign liabilities as a percent of GDP will rise four-fold before eventually stabilising, after several decades, at around 90 percent.<sup>10</sup> Such a foreign debt level is judged by the authors as affordable, but ultimately, for a variety of factors other than affordability,<sup>11</sup> a level that is unlikely to persist. I agree with their assessment, but would like to comment on the difficulty of making a concept such as sustainability operational and how this impacts on the tasks facing policymakers.

External balances have indeed widened across countries. Chart 1 shows the net foreign asset (NFA) position as a percent of GDP in the major OECD regions.<sup>12</sup> The main counterpart to the rising U.S. current account deficit and consequent rise in the foreign debt-to-GDP ratio, is an increase in the current account surplus of Japan, while the euro area has maintained a small current account surplus and a gradual rise in NFA as a share of GDP. The trends look striking. But are they really unsustainable? In fact, the diversity of current account and NFA positions across countries may reflect the process of closer integration itself. Indeed, one would expect, as the coefficient on the Feldstein-Horioka regressions falls (as reported in the first part of the Obstfeld and Rogoff paper) to observe a wider range of current account positions. Structural changes of this kind underscore the difficulty and provide apposite caution against assuming constant arbitrary estimates of sustainable current account positions.

Moreover, a given level of the current account balance will have diverse interpretations, including for sustainability, depending on how that position was reached. As is widely recognized, a large deficit that is financing current consumption or *ex-post* unproductive invest-

**Chart 1**  
**Net Foreign Asset Positions as a Percent of GDP<sup>a</sup>**



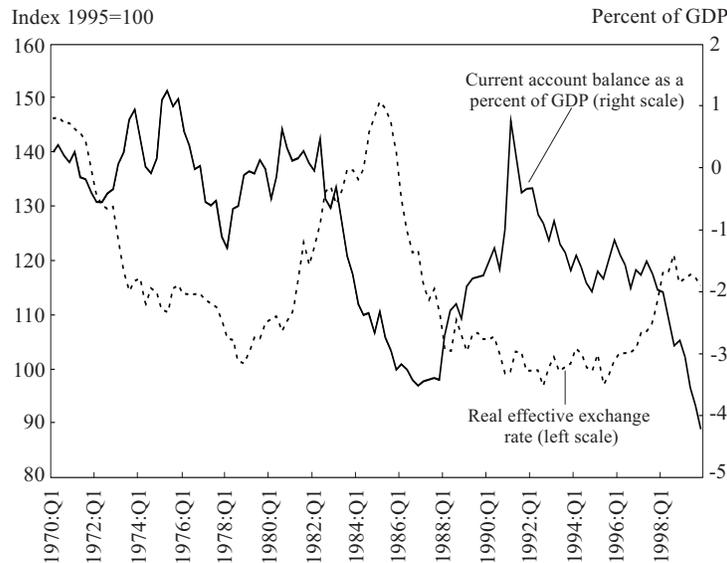
<sup>a</sup> Calculated as the cumulated current account balances, starting in 1975.

<sup>b</sup> Actual net foreign assets.

Source: OECD *Economic Outlook No. 67*, June 2000.

ment projects is not the same as a current account deficit that is financing worthwhile investments, since the latter will generate an income stream, which can service the initial foreign borrowings. In the case of the United States, the deterioration in the current account position from 2 percent of GDP—its twenty-year historical average—to almost 4½ percent now has occurred since mid-1996 (Chart 2). A number of unique factors have played a role. First, financial crises in emerging market economies in Asia and Latin America resulted, *inter alia*, in substantial exchange rate depreciations and sharply lower growth in domestic demand in these economies (while Japan was in recession and Europe slow to recover). And second, in the United States (and a few other OECD economies), there is growing evidence that high levels of private investment, particularly in information and communication technologies, have increased potential output growth and raised confidence in the emergence of a “new economy.” The OECD has over the course of the last couple of

**Chart 2**  
**Real Effective Exchange Rate and the**  
**Current Account Balance in the United States**



Source: *OECD Economic Outlook No. 67*, June 2000.

years increased its estimate of U.S. potential growth by about 1 percentage point to around 3½ percent.

Needless to say, the recent pace of expansion is well above potential and after nine years of growth the output gap is positive and at a high historical level. The combination of cyclical and structural forces resulted in U.S. import demand rising at double digit rates for the past four years (not seen since the early 1980s), while growth in demand for U.S. exports eased sharply, particularly in the immediate aftermath of the financial market crises. Unlike the mid-1980s, the contribution from real exchange rate movements seems limited. Indeed, since 1995 the OECD's measure of the real effective exchange rate (based on consumer price indices) has risen by some 17 percent.<sup>13</sup> This is considerably smaller than the 35 percent increase recorded over the first half of the 1980s.

Given the unusual circumstances that have prevailed over the past four or so years, a useful exercise is first to try to evaluate what level the current account position would achieve abstracting from cyclical influences. This provides a sense of the “structural” level of the current account position and gives a gauge as to the size of required external adjustment via the exchange rate channel (apart from the effects of structural changes on the supply side). Each *OECD Economic Outlook* reports the results of a scenario of this kind, which is constructed using the Interlink model and is conditional on specific assumptions about policies and economic developments in OECD and non-OECD countries and regions. The reference case also provides a basis for comparisons with scenarios based on alternative assumptions to give insights on the possible buildup or unwinding of specific imbalances and tensions in the world economy over the medium term and on the scope for policies to assist the adjustment process. In this reference scenario, growth paths are assumed to gradually close the gap between actual and potential output over the five years following the short-run projection period, exchange rates and commodity prices are assumed to be unchanged in real terms, monetary policies are directed at keeping inflation in line with the medium-term objective of low inflation, and fiscal policies are consistent with the stated medium-term objective of fiscal consolidation. In the latest of such medium-term scenarios published last June, as the path for U.S. growth is assumed to gradually close the 3 percentage points positive output gap, the U.S. external deficit declines to 3.9 percent of GDP by 2005, and to about 3½ percent once the dynamics are over.

The current account reversal necessary to achieve balance is, therefore, likely to be about 1 percentage point less than that of close to 4½ percent assumed by Obstfeld and Rogoff once we abstract from cyclical effects. One might also argue, however, whether zero is a right figure for a “sustainable” level of the U.S. current account. As mentioned previously, it is likely that the current deficit also reflects the increase in productivity growth that seems to have occurred in the last few years in the United States. At the same time, no comparable “new economy” effects seem to have pushed up productivity in the European Union as a whole or in Japan.<sup>14</sup> Divergent demographic

trends are also an important factor underlying differences in potential output growth rates. Ignoring changes in participation rates and immigration flows, over the next five years or so, the average increase of the working age population in the United States is likely to be more than one percent, compared with a quarter of a percent in Europe and a fall of over a quarter of a percent in Japan.<sup>15</sup> Differences in potential output growth between the United States, Europe, and Japan, may then explain part of the persistence in current imbalances expected in the next five years. Based on the available estimates of trade elasticities, a conservative estimate would be that these differences boost the U.S. trade deficit by about half of a percent of GDP over the period.<sup>16</sup>

### *Real exchange rate adjustment*

3.2

Obstfeld and Rogoff's objective is then to evaluate the effect on the real exchange rate of the U.S. current account going back from the present deficit position into balance. As mentioned previously, they use for this purpose a simple model in which consumers maximise a CES utility function with two arguments—that is consumption of traded goods and consumption of non-traded goods. Their first-order condition relates the relative price of the two goods to the ratio of the respective quantities. From this they determine the change in the consumer price index consistent with the change in the above ratio that results from the current account going back to balance while maintaining overall output and employment unchanged. The algebra is straightforward, even if unusual. In a standard macroeconomic model, it would amount first to write down the current account as the difference between net exports and the flow of interest payments on the foreign debt, compute from this the reduction in net exports consistent with bringing the current account back to balance and then, from the export and import demand functions, the required change in the exchange rate (for given levels of output and the consumer price index). In Obstfeld and Rogoff's case, this can be done if we know just two parameters: the share of traded goods in GDP (assumed constant at 25 percent over the relevant period) and the elasticity of substitution between the two types of goods in the utility function of the representative consumer (assumed, but with very lit-

the empirical content, to be equal to one over an horizon of one to two years and to 4 in the “long” run). A constant flow of interest payments to GDP is also assumed (at its current level), which implies a constant foreign debt to GDP ratio, the obvious consequence of the current account coming back to balance.<sup>17</sup>

Assuming perfectly flexible prices and wages, and a monetary policy that maintains overall price stability, Obstfeld and Rogoff conclude that a 12 percent real depreciation would be sufficient to balance the current account, if we start with a 4.4 percent deficit. Recognizing the only partial pass-through of exchange rate changes from exporters to importers, in the (very) short run the depreciation of the dollar might be double than if nominal exchange rate changes were fully reflected in domestic prices. If, furthermore, one also allowed for price stickiness prevailing in the short run, according to Obstfeld and Rogoff, a sudden reversal of the current account deficit would call for a depreciation between 40 and 50 percent.

Following the arguments presented in the previous section, the adjustment in the current account needed to ensure sustainability might be smaller than the 4.4 percent of GDP reduction assumed above, and the necessary real exchange rate adjustment would be correspondingly smaller. Considering the reduction of a (structural) deficit of 3.5 percent of GDP to one of ½ percent, and using Obstfeld and Rogoff’s model and assumptions, the depreciation would amount to about 8.5 rather than 12.5 percent once the short-run rigidities were disposed of.

It turns out that even if we do not know much about the elasticity of substitution, the assumption of a Cobb-Douglas utility function appears to produce figures similar to the ones obtained with more standard aggregate macro models. Obstfeld and Rogoff seem to be surprised to get “exactly” the same short-run results that they claim are obtained “from old-fashioned, large-scale, black-box macro models.” While microfoundations add the important dimension of linking the “free parameters” of a model to some fundamental determinants, I am not so sure that the representative agent assumption is without consequences (that is, I believe that aggregation is a relevant

issue). Furthermore, in the case in point, it seems to me that there are strict similarities between the building blocks of Obstfeld and Rogoff's model and those of some "old-fashioned" macro models. In any case, in the Interlink model of the OECD, a 10 percent dollar nominal depreciation ends up reducing the current account deficit-to-GDP ratio by .7 percentage points, if GDP is held fixed in real terms, while a 10 percent real exchange rate depreciation would cut the deficit by about 1 percentage point, which is the result that Obstfeld and Rogoff seem to refer to for the "short run."

But prices are not maintained fixed in these simulations. Assume that this was possible and that at the same time full employment could be maintained (without generating a fatal instability). Contrary to the claim in the last paragraph of Section 4.5 of the paper, it seems to me that, in this case, once the pass-through finished to operate and the price and wage stickiness disappeared, a reduction over time of the real exchange rate needed to balance (or substantially reduce) the current account would be observed also in these models. But for this to hold, the price and wage stickiness that would cause, in Obstfeld and Rogoff's words, "a much larger dollar depreciation needed to prevent unemployment," should not lead to a short-run trade-off between unemployment and inflation.<sup>18</sup> In other words, no unit roots between current and past (logarithmic) levels of prices should be observed in the reduced form relation between the domestic price level and unemployment (or the output gap). Obviously, this is as much a theoretical as an empirical issue, one that is not examined in any detail in Obstfeld and Rogoff's paper.<sup>19</sup>

It is also for this reason that, while I sympathize with much of Obstfeld and Rogoff's hard-landing analysis and find the point that a gradual adjustment would be more comfortable than a sudden one very easy to agree with, I have some problems with the discussion about the aims of monetary policy. In the short run, in a world of price stickiness, if the Fed strictly aims at price stability, I don't see how a substantial depreciation can avoid having negative real consequences. Obstfeld and Rogoff admit it, saying that the Fed will face a dilemma. It seems to me that the dilemma is there not only with a 45 percent depreciation but also when it is 24 percent. In general, the

model is just too simple to allow one to take into account monetary policy responses and their effects. This is where macro models, even if old-fashioned, turn out to be particularly useful. And rather than being “black boxes,” I would characterize them as being *ad hoc*, recalling the correct meaning of the term, that is “for a particular purpose.” It is obvious then that one should make a judicious use of these models. At the same time, I do not see how we can discuss policy implications on the basis of a simple stylized model of a representative consumer like the one used in Obstfeld and Rogoff’s paper.

*The nature of the shocks and the policy responses* 3.3

The problem with the above sort of analysis, and all too often the case, is that current account adjustment is treated as if it was a kind of exogenous force. As Obstfeld and Rogoff note, exchange rate and current account movements are determined simultaneously. It might be a convenient and instructive exercise to identify, even if in a rough and approximate way, the change in the level of the exchange rate “required” for a given external adjustment, but its limitations should be recognized. In particular, it should be stressed that the exchange rate level is not an objective in and of itself. Rather, it facilitates adjustment so that real variables that policymakers care about, such as output and employment absorb less of the burden of adjustment. Moreover, the adjustment role of the exchange rate depends on the nature of the shock. Questions such as what is most likely to trigger adjustment, how is monetary policy going to respond, and what will be the implication of adjustment in the United States for adjustment in the rest of the world are, therefore, particularly important.

Obstfeld and Rogoff postulate a number of shocks that may hit the U.S. economy. These include a sudden decline in the U.S. growth rate and a stock market collapse (for reasons other than a decline in expected growth). Again, the OECD has recently used its Interlink model to analyze similar shocks; the implications of a significant weakening of the dollar have also been examined. The simulations illustrate, as noted previously, that the policy implications depend on the nature of the shock.<sup>20</sup>

Consider first the outcome of a dollar crisis scenario. The fall in the dollar may come about exactly for the reasons discussed in Obstfeld and Rogoff's paper. The current policy debate about the large and increasing U.S. current account deficit and the risks it poses for the value of the dollar have been assumed to lead to a drop in the expected U.S. effective exchange rate, with a consequent actual dollar depreciation sufficient to generate a trade surplus and to stabilize the U.S. foreign debt at about 24 percent over the medium term (it would have reached 35 percent in 2005 in the baseline OECD medium-term projection). A 30 percent effective depreciation of the U.S. dollar is consistent with such a result, accompanied by a specific monetary policy response aimed at containing inflation at around 2 percent in Europe and at bringing it back to slightly above that level in the United States within a relatively short period of time (after a peak close to 4 percent in the first year following the dollar depreciation). The decline in the dollar is assumed to be associated with a 25 percent fall in the U.S. stock market, reflecting the same loss of investor confidence accompanied by drops of about half as much in the markets of the other major economies.

Obviously, the objective of this scenario is mostly to shed light on the path of adjustment in the United States, as well as in the other main OECD areas. It turns out that the dollar depreciation has an immediate positive effect on U.S. net exports, almost totally offset, in terms of the overall effect on total demand, by the impact of the fall in financial wealth on private demand that takes place if monetary policy is allowed to respond. In the absence of a monetary policy response (i.e. with unchanged real interest rates), annual inflation would increase by about 1½ percentage point over a fairly prolonged period of time (reflecting higher import prices and a larger positive output gap). The monetary policy response introduced to counter the pick-up in inflation consists in a rise in interest rates of about 150 basis points above the 200 implied by the assumption of unchanged real rates. Similarly, in the euro area, a change in the monetary policy stance would be brought about with an easing of short-term interest rates of about 200 basis points necessary to offset the deflationary effects of the euro appreciation. This would also counter the negative wealth effects on demand.

The end result for the U.S. economy would, thus, be a modest deviation from the baseline rate of growth over the five-year period considered in this scenario, a containment of inflationary pressures after the short-run impact of the depreciation, and a gradual return to a slight surplus (with a stabilization of the foreign debt-to-GDP ratio) in the current account. While the scenario only intends to be indicative of the possible accompanying effects of a crisis triggered by a sudden drop of the dollar, the results are indicative of the fact that for the United States the consequences of such a change could overall be beneficial. But what about the effects on the other major economies? On the euro area economy the effects would be limited. The worst consequences would be suffered in Japan, where the absence of substantial room of maneuver for monetary policy in the face of the fall in net exports and GDP due to the yen appreciation would lead to a reduction in real GDP growth of about 2 percentage points in the first two years of the simulation.<sup>21</sup>

A second scenario examined by the OECD is that of a stock market correction, with the assumption of a sudden fall in U.S. stock market prices by 30 percent, accompanied by falls of 15 percent in the other major OECD economies. The negative effects of such a fall on consumption and investment would be countered by a substantial easing in monetary policy (with an immediate reduction of 75 basis points and real rates maintained between 1 and 2 percentage points below the baseline values for the first three years of the simulation). An easing would also take place in Europe, while in Japan short-term rates would be kept unchanged at around zero (the level prevailing at the time the simulation was conducted). The relative movement in interest rates would also lead to a moderate fall in the dollar, but the main adjustment factor would consist in the reduction of demand with respect to the baseline. As a result, the current account would undergo a correction of about 2 percentage points of GDP, with the deficit still remaining, however, after five years above 3 percent. Again, outside the United States, Japan would feel the major impact, though this time GDP would be less than 1 percentage point below the baseline after the first two years.

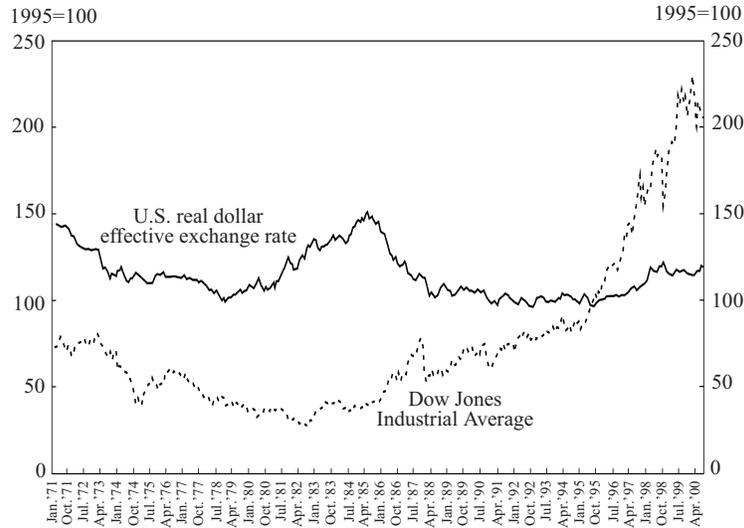
The easing of monetary policies would play a major role in moder-

ating the effect of the correction in stock markets. In its absence, the cumulative GDP loss would amount to 2½ percentage points relative to the reference scenario (the OECD medium-term projection). This should be compared with a much smaller loss (less than a percentage point in the short term and even lower over a longer period) in the case of an accommodating monetary policy response. Overall, while the drop in stock prices would lead to a correction in the U.S. external imbalances through a reduction in aggregate demand, the size of the drop considered in this scenario would be far from bringing the current account back to balance.

These scenarios, and others normally produced by the OECD Secretariat and discussed in the meetings of the OECD Economic Policy Committee, are clearly only indicative of possible outcomes of particular critical corrections, and they only intend to elucidate a number of effects and possible feedbacks put in motion by particular shocks. They suggest, however, that while a 30 percent dollar depreciation associated with a relevant fall in the U.S. stock market would lead to a complete correction of the balance of payments imbalance (and a stabilization of the U.S. foreign debt-to-GDP ratio), a similar drop in share prices not accompanied by a substantial drop in the dollar would fall short of providing such a correction. Particularly in the former case, the effects for Japan would be rather negative.

Unfortunately, this analysis does not equip us with a predictive tool that is anything nearly as powerful as the benefit of hindsight! How would one respond, for example, if asked the question which of the above scenarios, if any, is more probable? No doubt, we all have reasoned views and opinions, but it is certainly the case that *ex ante* it is incredibly difficult, if not impossible, to know. It might be helpful, however, examining the long-run evolution of both the U.S. real effective exchange rate and stock prices. Chart 3 shows that while for the latter a 30 percent correction would bring the real effective exchange rate of the dollar below any historical low (at least over the last thirty years), a similar correction in stock prices would still keep them much above any previous historical peak. While this is no basis for any conclusion, it provides at least some indication of the relative positions of the two variables.

**Chart 3**  
**Real Effective Exchange Rate and Real**  
**Stock Prices in the United States<sup>a</sup>**



<sup>a</sup> Effective exchange rate and stock indices are deflated using CPI.

Source: OECD, Bloomberg.

To conclude, Obstfeld and Rogoff counsel considering preventative measures to avoid the unsustainable condition of the U.S. current account to continue indefinitely. They do not offer, however, any suggestion. The final question would then be whether, instead, it would not be better for the United States to continue living with the situation and hope for the best. Perhaps this is the most interesting policy conundrum, one around which further research and a thorough policy discussion should be centered.

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## Endnotes

<sup>1</sup> See Obstfeld and Rogoff (2000) and the review articles in *The Economist* (2000a, b).

<sup>2</sup> This term defines the process of gradual replacement (and ultimately the abolition) of virtually all quantitative restrictions on imports of agricultural products with their estimated tariff equivalent, as agreed in the context of the Uruguay Round Agreement on Agriculture.

<sup>3</sup> See Coppel and Durand (1999) from which much of the evidence quoted in this section is drawn.

<sup>4</sup> The indicator is defined as the sum of the share of output exported (exports being fully exposed) and the share sold on the domestic market (assumed proportional to the import penetration rate in that market).

<sup>5</sup> In particular, in 1970 the import penetration figures were equal to about 5, 7, and 4 percent respectively in the United States, the European Union (defined as the current 15 member states), and Japan, while in the case of exposure to foreign competition they were respectively equal to about 11, 16, and 12 percent.

<sup>6</sup> I found especially interesting the attempts at explaining the Feldstein-Horioka saving-investment puzzle and the slow price response to exchange rates changes on the basis of frictions in international goods markets. With respect to the former, a strong correlation between the current account and real interest rates has also been identified in Orr *et al.* (1996), who interpret it, however, with reference to country-risk premia effects on exchange rate expectations.

<sup>7</sup> See Coppel and Durand (1999) for further discussion of this point.

<sup>8</sup> For example, Japan displays a very high degree of openness on explicit barriers. But if implicit barriers such as national discrimination implied by regulatory and administrative procedures are taken into account, it comes out as much less open than the United States and most EU countries. See Nicoletti *et al.* (1999) for further details.

<sup>9</sup> See Figure 8 in Coppel and Durand (1999) and the evidence in Oliveira Martins and Scarpetta (1999).

<sup>10</sup> Technically speaking, if the U.S. potential growth rate is lower than the “long-term” world real interest rate, the only sustainable trade balance for the United States is a small surplus. Intertemporal solvency requires, in fact, that all debts be eventually repaid, which implies that trade deficits today must be offset by equal trade surpluses some time in the future. But I would not think this to be a very interesting argument from a policy perspective, one that is mostly concerned with the links between the current account deficit and the level of the dollar in the medium term.

<sup>11</sup> For an interesting discussion of the sustainability of the strong U.S. dollar fifteen years ago, before the buildup in the U.S. foreign debt, see Krugman (1995) and Mussa (1995). In the end, Krugman observed that more than being linked to possible solvency problems, “the constraints on feasibility are essential political” (p. 112). This may be even more so now, as the risks of a protectionist response do not look negligible. On the need to ensure sustainability by improving structural conditions that, rather than simply

relying on a depreciation of the dollar, would lead, among other things, to an increase in the U.S. household saving rate and in the share of services in total exports, see Mann (1999).

<sup>12</sup> Values for 2000 and 2001 are derived from current OECD projections.

<sup>13</sup> This compares with about 19 percent if real exchange rates based on unit labor costs are considered. This is a somewhat smaller increase than the 25 percent appreciation mentioned by Obstfeld and Rogoff, which is taken from the IMF. The difference between the IMF and OECD real effective exchange rate series is generally modest, but has not been negligible over the last five years. While the IMF indicator considers twenty-one trading partners and uses average weights over the reference period, the OECD considers forty partners and uses moving trade weights.

<sup>14</sup> For further analysis of this point, see Bassanini *et al.* (2000).

<sup>15</sup> See OECD (1999a), where medium-term current account prospects are examined in some detail.

<sup>16</sup> The increase in the rate of growth of potential output estimated for the United States might also lead over time to higher income elasticities of demand for U.S. exports and lower income elasticities of import demand in the United States, due to increasing product returns and product differentiation, as suggested by Krugman (1989). See also, for some empirical support of this view, Bayoumi (1998). This would enhance trade performance and reverse, in part, the decline in the current account balance.

<sup>17</sup> This is strictly true for equal interest and output growth rates.

<sup>18</sup> An obvious exception would be that of the simplest Lucas supply function where the rate of unemployment would just be a function of the difference between current and expected inflation, and rational expectations would make it purely white noise.

<sup>19</sup> It seems to me that differences in model specification inevitably reflect differences of views on the intrinsic stability of an economy. For an elaboration of this issue in a comparison of the properties of different large-scale macro models of the U.S. economy, see Visco (1991).

<sup>20</sup> See, in particular, OECD (1999b), Chapter 1 and related Appendix, where the medium-term consequences of a number of risks to the U.S. economy were quantified, as well as the simulations of a substantial drop in the dollar examined in Coppel *et al.* (2000).

<sup>21</sup> See, for further details, Coppel *et al.* (2000).

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