

International Economic and Financial Review

国際経済金融論考



Institute for International Monetary Affairs (IIMA)
(財)国際通貨研究所

(NO.1, 2009,)

April 27th, 2009

A False Argument that “The Cause of the Global Financial Crisis lies in the Current Account Surplus Countries”¹

---An argument that has gained ground in the United States to transfer the blame of the financial crisis---

Masaharu Takenaka

Director and Chief Economist²

and

Yozo Nishimura

Senior Economist

Economic Research Department

Institute for International Monetary Affairs

Summary

“Countries which increased trade surplus rapidly, foremost China, invested their surplus including their growing foreign exchange reserves in the US Treasury bonds and other investment instruments. This massive money inflow lies at the root of the housing bubble in the United States.” American economists and others are increasingly using this type of logic which places the cause of the financial crisis, originating in the United States and now hitting the whole world, on the foreign exchange intervention and the foreign reserve policies of the current account surplus countries. This kind of logic is akin to saying that the “bankruptcy of a multiple debtor occurs because financial institutions extended loans at low interest rates.”

Even after the monetary conditions tightened in the United States since July 2004, massive

¹ This paper was released in Japanese on February 2nd, 2009.

² Titles of the authors are as of the release date of Japanese version. Mr. Takenaka is currently professor of economics at Ryukoku University.

capital inflows continued from the current account surplus countries into the United States, and to some extent, it is possible to show that this had some effect of suppressing the rise in long-term interest rates in the United States. However, that could not have had so large an impact as to create the housing bubble by itself. Even if the suppressing effect of the capital flows into the United States on the long-term interest rates was to be regarded as one of the factors of the housing bubble, this effect could have been negated by raising the short-term interest rates by about 1.0% through monetary tightening.

It was thought as a desirable situation that inflation was held down and real long-term interest rates were stable during the economic recovery and boom period in the United States since 2002. Many American economists congratulated the situation as the “Goldilocks economy.” The bubble and its collapse which terminated the “Goldilocks economy” were caused by the composite of the following factors; 1) home loan borrowers lacked basic financial literacy, 2) mortgage brokers and financial institutions took advantage of such illiteracy, 3) investment banks continued to securitize mortgages while being well aware of the mounting bad loans, 4) rating companies provided irresponsibly favourable ratings to support the securitization of investment banks, 5) hedge funds and other investment managers sacrificed the long-term interest of investors for the sake of their own short-term gains, 6) financial authorities turned a blind eye to the mounting debt and deteriorating risk position of the non-banking financial sector.

Were the global imbalances of current accounts the root cause of the financial crisis?

Martin Wolf, the associate director and chief economics commentator of the Financial Times, represents those who argue that the root cause of the current global financial crisis that proliferated from the United States is the increase of the foreign currency reserves of the current account surplus countries and their investment in the US Treasury bonds and other investment instruments. In an interview article, “The Deep Roots of the Financial Crisis - Council on Foreign Relations,” October 21, 2008, based on his new publication, “Fixing Global Finance” (The Johns Hopkins University Press, 2008), he argued as follows.

“I think it's not an accident in this context of savings surpluses in the emerging world and very low real interest rates--the environment was established in which very significant housing bubbles began to emerge in a number of developed countries.”

The lesson that the emerging economies of Asia learned from the Asian currency crisis of 1997-98 was that the growing current account deficit and dependency on short-term capital inflows were very dangerous. This is because if the investors and lenders of the credit countries

come to have any doubts about the repayment capability of the debtor countries for whatever reason, just as it happened with the Asian financial crisis, then there is a danger that a cycle of crisis would occur as follows.

Rapid and simultaneous outflows of short-term capital → fall in the value of a home currency → hike in the value of foreign debt of debtor countries denominated in a home currency → deterioration of net worth of the debtors and default → financial and currency crisis.

As a result of this lesson, the emerging economies of Asia, with China in the forefront, pursued the policy of suppressing the rise of the value of their currencies by intervening in the foreign exchange market -- selling their home currency while buying US dollars -- and increasing the current account surplus and foreign currency reserves. The US Treasury markets became the destination of such foreign currency reserve investment. Despite the tighter monetary policy of the FED since July 2004, the real interest rates were suppressed to a relatively low level, which created the conditions causing the huge housing bubble in the developed countries including the United States and many in Europe.

While talking the above mentioned logic, Mr. Wolf cautiously avoids saying directly that the inflows of the excessive investment capital from the current account surplus countries were the cause of the housing bubbles. Instead, he says “That then created the conditions, in my view, for the financial crisis at the macroeconomic level.”

A similar argument as used by Martin Wolf can be seen in the article of January 22, 2009 of the Economist magazine. But it is far less ambiguous. The title begins with “When a flow becomes a flood” and continues “The deep causes of the financial crisis lie in global imbalances --- mainly, America’s huge current account deficit and China’s huge surplus.” This is far more direct than the expression used by Martin Wolf and puts the blame squarely on the foreign investment flows into the United States caused by the current account deficit of the United States and the huge current account surpluses of countries like China.

Until the eruption of the financial crisis in 2007, this type of argument, which was originally talked as a concept of “global saving glut” by Mr. Ben Bernanke and the FRB economists in 2005, was used to explain why the inflation and the long term interest rates remained suppressed in spite of the continued economic growth and the tightening monetary policy in the 2005-2006 period. It was only after the summer of 2007 when the financial crisis struck that “global savings glut” was pointed out as being “the deep cause” of this crisis.

The cause and effect relationship between the increasing US current account deficit and the increase of capital inflows

Let us first confirm the basics. Current account balance equals to the balance between domestic savings and investment of a country, and current account deficit reflects savings shortage and surplus reflects savings excess compared to investment. The absolute value of current account and capital account balances are equal with opposite signs. (Current account deficit = capital account surplus, current account surplus = capital account deficit)³

If all other conditions are equal, then the decrease of household savings (it was below zero for a while in the United States before the crisis) means the increase in current account deficit and in capital account surplus, as was the case in the United States in the 2000s. This relationship is constant as an equation but it is far from easy to determine which is the cause and which is the effect. Hence, arguments on a cause-and-effect that the “increase in domestic demand (housing bubble, decreasing savings ratio) leads to increase in current account deficit,” which is completely opposite from “significant increase in capital inflows from abroad leads to the increase in the current account deficit,” have developed based on the political or policy interests.

However, if we evaluate the relationship between the value of the US dollar and the US real interest rates, it shows that the increase in the current account deficit is the cause and effect result from both directions, not just one. Though we will not go into details, the summary of the logic is as follows. During 2002-2006, before the collapse of the housing bubble, the real foreign exchange rates of the dollar showed a downward trend and the real long-term interest rates showed a lowering trend. If we factor in only the increase in the capital account surplus, that would mean an increase in capital inflow into the United States, and would explain the lowering of the real long-term interest rates. However, it would not explain the fall in the value of the real foreign exchange rate of the dollar. On the other hand, the increase in the current account deficit by itself would mean an increase in the amount of necessary capital inflows into the United States and would explain the fall in the real foreign exchange rate but cannot explain the fall in the real long-term interest rate.

This paper will focus on the following questions. How strong was the effect of the following process? : “growing current account surplus of the emerging and developing countries → increase in the capital account surplus of the United States (increase of capital inflow to the United States) → restraining the real interest rate in the United States.” Was the effect of this

³ To simplify the definition, foreign currency reserves are included in the capital account.

process strong enough to be deemed the main cause of the US housing bubble? Would it not have been possible to avoid or suppress such a trend by applying the standard monetary tightening policy?

Point 1: How effective were the inflows of investment money from the current account surplus countries in lowering the real long-term interest rate in the United States?

It is reasonable to consider that the investment flow into the US Treasury bond markets from the current account surplus countries during the economic recovery and boom years after 2002 had some effect to lower the long-term interest rates in the United States and to depress the rise of long-term interest rates even after the FED moved to monetary tightening in July 2004. But the question is how intense was the effect? Was it as much as to be one of the main reasons for the bubble caused by credit expansion?

There is already a study made on this question. F. E. Warnock and V. C. Warnock⁴ studied the statistical relationship between foreign investment in the US government bond and ten year Treasury yield by analysing the yield trend of the ten year Treasury bonds covering nearly 20 years between January 1984 and May 2005, based on the econometric model created by Brian Sack.

The econometric model of B. Sack explains the ten year Treasury bond yield through domestic macro-economic factors, using the following variables. 1) ten-year- and one-year- ahead inflation expectations, 2) expected real GDP growth over the next year, 3) interest rate risk premium (standard deviation of long-term interest rates during the past three years), 4) Federal funds rates, 5) structural fiscal deficit (in comparison to the GDP of the previous year).

According to the discussion paper, the domestic macro-economic model created by Sack adequately explains the fluctuation of the ten year Treasury bond yield in the past 20 years (coefficient of determination $R^2=0.89$), but the long-term interest rates (actual figures) since 2004 deviate downward from the estimates and the diversion becomes about 100bp by 2005 (See Chart 1). (refer to the footnote for Sack's model⁵)

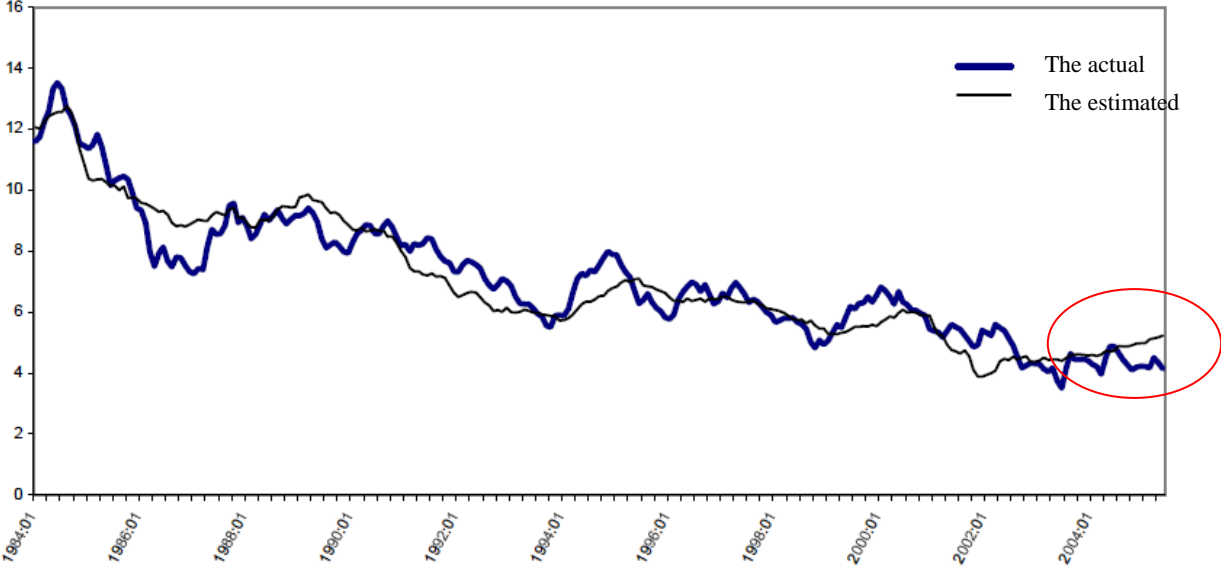
⁴ Warnock, Francis E. and Warnock, Veronica Cacdac "International Capital Flows and U.S. Interest Rates". This discussion paper was published by the FRB on October 6, 2005 as a research report by Francis Warnock, who is a former senior economist at the FRB and currently Professor at the University of Virginia and Veronica Cacdac Warnock, Assistant Professor at the University of Virginia.

⁵ Sack's equation

$$i_{t,10} = a + b\pi_{t+10}^e + (1-b)ff_t + c(\pi_{t+1}^e - \pi_{t+10}^e) + d(rp_t) + e(y_{t+1}^e) + f(deficit_{t-1}) + \varepsilon_t$$

Warnocks (2005) conducted a multiple linear regression analysis of ten year Treasury yields in the same period by adding the foreign investment in the US government bonds as an explanatory variable to the above domestic macro-economic model.⁶ The variables for investment in the US government bonds that were used in the analysis were; 1) the amount of Treasury bills bought by foreign public sector, 2) the amount of Treasury bills bought by foreign investors including private investors, 3) the amount of all the US bonds bought by foreign investors.

Chart 1: Ten year Treasury bond yield deviating from the estimated value



Source: FRB, “International Capital Flows and US Interest Rates”

The discussion paper analyzes the three models based on the above American bond investment factors and concludes that when the categories of bond investment are expanded the coefficient of determination improves (R^2 ① = 0.89, R^2 ② = 0.90, R^2 ③ = 0.91). The coefficients of the US bond investment variables are all negative (government bond yield decreases with the increase of

-
- $i_{t,10}$: 10 year Treasury bond yield
 - π_{t+1}^e : 1-year-ahead inflation expectations
 - π_{t+10}^e : 10-year-ahead inflation expectations
 - y_{t+1}^e : Expected real GDP growth over the next year
 - ff_t : Federal funds rates
 - rp_t : Interest rate risk premium
 - $deficit_{t-1}$: Structural budget deficit scaled by lagged GDP

⁶ A model adding the variables for foreign investment in the US government bonds ($foreign_t$) to the above model is adopted.

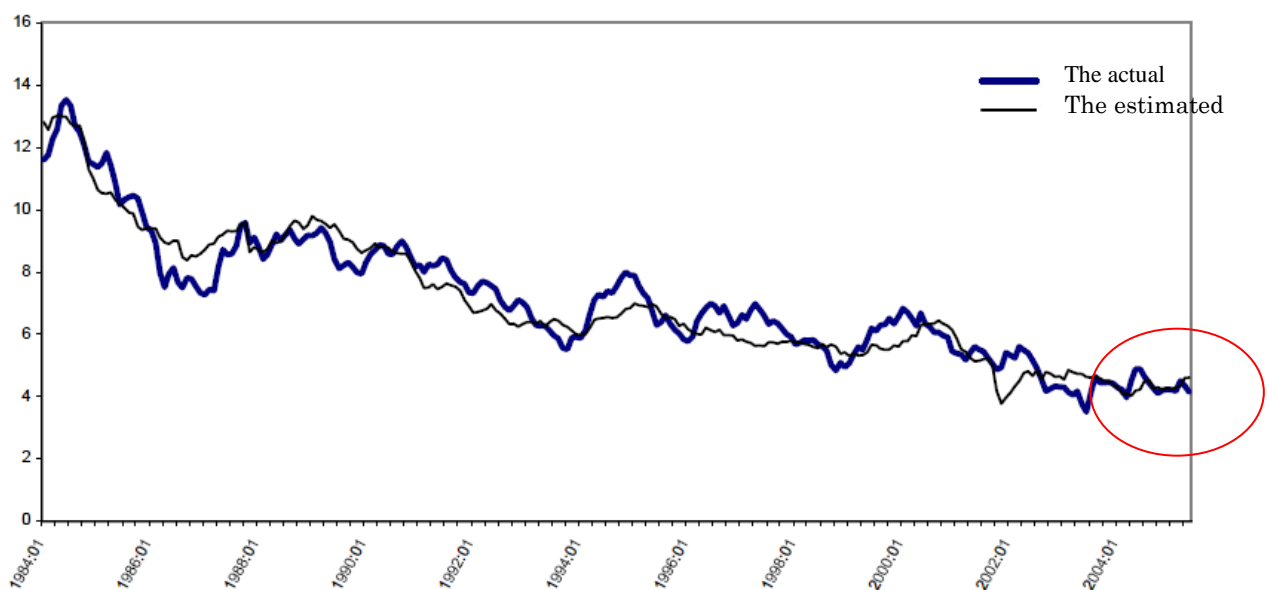
$$i_{t,10} = a + b\pi_{t+10}^e + (1 - b)ff_t + c(\pi_{t+1}^e - \pi_{t+10}^e) + d(rp_t) + e(y_{t+1}^e) + f(deficit_{t-1}) + g(foreign_t) + \varepsilon_t$$

investment in American securities) and are statistically significant.

Sack's domestic macro-economic model could not provide an adequate statistical relationship between the expected short-term inflation rates and expected economic growth rates on the one hand and ten year Treasury yield on the other. But the adjusted model which included "foreign investment in the US securities" factors showed the relevance of those explanatory variables. It is especially important to note that by adding the "foreign investment in the US securities" factors, the deviation between the estimated yield and the actual yield in the last few months was closed (See Chart 2).

According to this paper, if the foreign investment in the US securities is assumed to be 2% of GDP, which is the past average, the divergence between the actual value and the estimated value would be 105bp and it can be inferred that foreign official inflows into the US securities had depressed the long-term interest rates by 100bp.

Chart 2: The real ten year Treasury yield: the actual yield and the estimated yield based on the adjusted model



Source: FRB, "International Capital Flows and U.S. Interest Rates"

The Warnocks conclude in their revised paper released in October 2006 from NBER with the same title as follows: "We estimate that had there been no increase of foreign official flows into U.S. government bonds over the past twelve months until May 2005, the 10-year Treasury yield would currently be 90 basis points higher. Further analysis show that two thirds of the impact

derives from East Asia.”⁷

Point 2: Can the depressing effect of the long-term interest rates by less than 1% be called the major cause of the bubble?

Supposing their estimate is correct, we must ask a next question whether the depressing effect on the real long-term interest rates by less than 1% as estimated above was the major cause (or at least one of major causes) of the real estate bubble. Instinctively, it is difficult to assume that the “deep cause” of the most severe financial crisis in the post-war years which originated in the bursting of the real estate bubble was a mere difference of less than 1% in the real long-term interest rate.

Without doubt, the combination of the boom and lowering real long-term interest rates create an environment where asset bubbles develop easily. As the earnings ratio of assets generally increases in boom years, as long as the environment is such that the “earnings ratio of assets is higher than the interest rates on borrowing” there is the tendency to increase leverage ratio (increasing debt) and making investments in order to increase a return on owned capital investment. The demand for asset investment as a result tends to cause a spiral of increasing asset value and credit expansion (i.e. increased borrowing)

However, could the depressing effect on real long-term interest rates by less than 1% as estimated be the major cause of the unprecedented housing of the 2000s? If we look in the past, the relationship between the fluctuation of real long-term interest rates and the real estate boom and bubble burst are not so simple. Let us look at the relationship between the house price index and the real long-term interest rates published by the OFEHO since 1975 (See Table 1 and Chart 3). The real interest rate (=nominal interest rate minus the percentage change of GDP deflator from the previous year) of ten year Treasury bonds dropped below 2.0%, a distinctively low rate, between 2004-2006, even though this was during the economic recovery and boom years.

⁷ Warnock, Francis E. and Veronica C. Warnock (2006), “International Capital Flows and U.S. Interest Rates,” *NBER Working Paper* 12560, October.2006

Table 1: The three housing booms since the 1970s

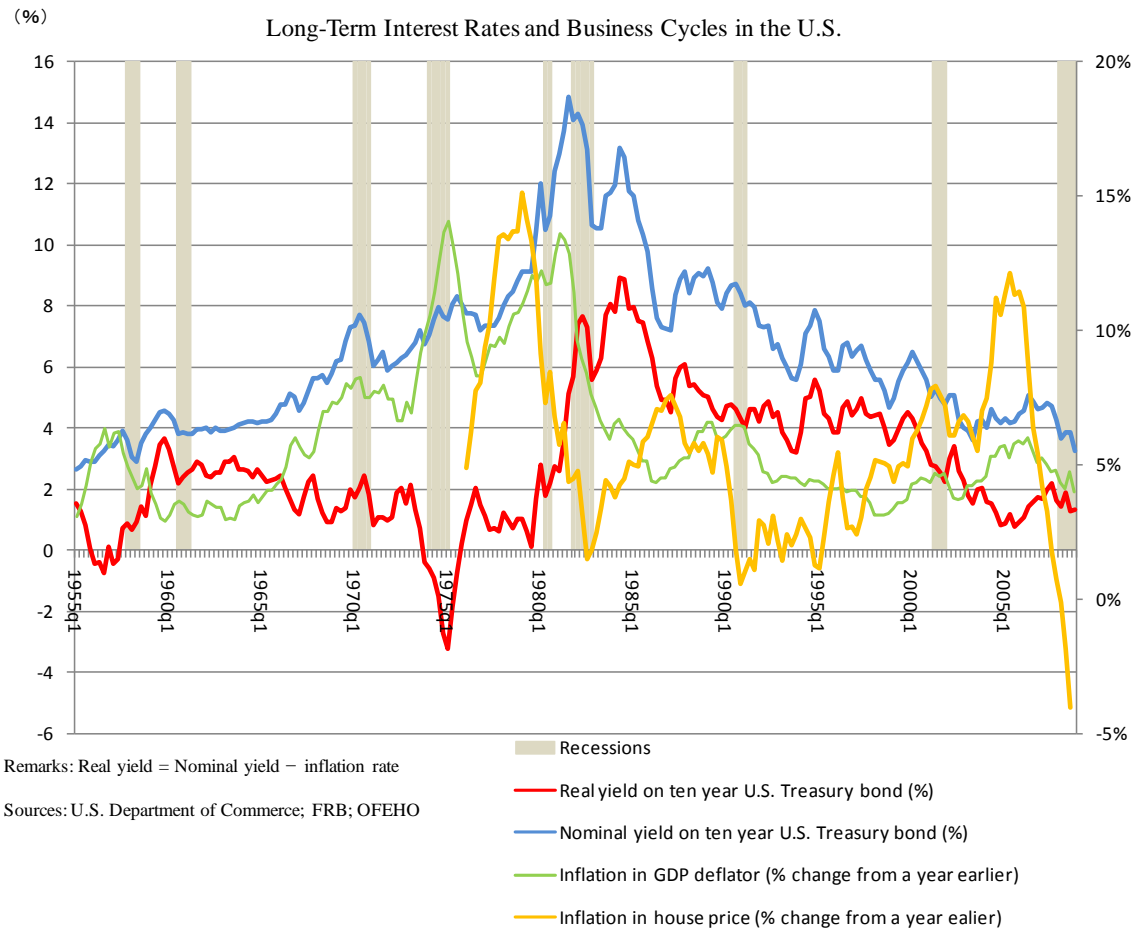
Boom periods	Long-term real interest rates (%)	The highest percentage increase of house price from a year earlier during the period (%)	The lowest percentage increase of house price from a year earlier during the period (%)
The latter half of the 1970's	from 0 to 2 %	15.1%	1.5%
The latter half of the 1980's	from 4 to 6 %	7.6%	0.6%
From 2002 to 2006	from 1 to 2 %	12.1%	-4.0%

Since 1975, there have been three housing/real estate bubbles on the national scale in the United States including the one in the 2000s. The housing boom of the late 1970s turned into recession because of the sharp rise in interest rates due to the strict monetary policy to control the money supply in the early 80s in order to contain inflation. At the same time, the rapid rise of interest rates deteriorated the balance sheets and profitability of banks and S&Ls that extended long-term housing loans with fixed interest rates and caused the financial crisis. The real interest rates of those years were lower than those of the 2000s and the rise of house prices was steeper. Yet even after the end of the boom, the growth rate of house price changes did not drop below zero.

The boom in the late 1980s occurred under higher real long-term interest rates than in the late 1970s. The rate at which house prices increased was slower than during the past and the subsequent booms and the growth rate of prices came close to zero after the end of the boom. In the current boom of the 2000s, the real long-term interest rates and the price increase ratio at the peak of the bubble were both at the average of the past two booms but after the end of the boom, prices dropped markedly to below those of the previous year. It is a noticeable characteristic that even now, in January 2009, the prices are continuing to drop.

Although data is limited since the record of the housing price index only begins in 1975, a tendency can be seen where the lowering of real long-term interest rates in the boom years causes real estate booms. However, there is a huge difference in the size of boom and the extent of adjustment that has to be made after the boom. In another words, there is nothing to prove that a real estate bubble would never have occurred if there had not been an increase of foreign investment in the US bonds and as a result, the long-term real interest rates had remained at 2-3% instead of 1-2%. Hence it is quite a stretch to say “the depressing effect of the active bond investment from overseas on real long-term interest rates led to a housing bubble”.

Chart 3: The three housing bubbles since 1975 and real long-term interest rates



It was quite possible to prevent the drop in real interest rates from creating a bubble through monetary policies

Even if we accept to some extent the “bubble contributing effect,” i.e. that the depressing effect on real interest rates that foreign Treasury bill investment had contributed to the bubble, a depressing effect on long-term interest rates by merely 1.0% or so could have been negated almost completely if the FED had raised short-term interest rates by another 1.0%.

Of course the FED cannot control long-term interest rates directly through its monetary operations while they can control only the short-term money market interest rates through adjusting FF interest rates. However, hedge funds, investment banks and structured investment vehicles (SIVs) created by banks were highly leveraged investors. And those leveraged investors were raising funds (increasing debts) through short-term borrowing in markets such as commercial papers and short-term loans. In another words, by raising short-term interest rates

another notch, it would have an effect to deter and discourage their leveraged investment, and avoid creating excessive credits which led to the bursting of the bubble.

If the argument goes that “the main reason for the bubble was the excessive drop in real interest rates”, then the main question concerning responsibility should be whether or not appropriate monetary policies were conducted at the time. The person who should take the responsibility is Alan Greenspan who was the chairman of the FRB. At the Joint Economic Committee hearing in 2005, he was asked whether the current housing boom was a bubble, and he acknowledged some signs of bubble but insisted on calling them “froths” and underestimated the risk of bubble. The financial supervising authorities which continued to underestimate the seriousness of low-quality loans that were spreading in the housing financing markets and the risk of rapid expansion of credit in the non-banking financial sector are very much responsible as well as the deficiencies of the regulatory system.

Fortunately the financial regulatory reform which has started by the Obama administration seems to be heading for the right direction. The intent was already evident in the plan which was released by the Treasury Department on March 26, 2009.⁸

Post-crisis challenge: Global economic development that does not depend on the increasing current account deficit of the United States

Once we step back from the contexts of the causes and the lessons of the financial crisis, there is no doubt that adjusting global imbalance regarding the US current account deficit is one of the high priority challenges facing the global economy. The US current account deficit is shrinking in terms of nominal GDP ratio. It was 6.0% at its height in 2006, then decreasing to 5.3% in 2007, 4.7% in 2008 and 3.7% in the fourth quarter of 2008. Due to shrinking domestic demand, this decreasing trend will continue in the mid-term (see Table 2).

⁸“Treasury Outlines Framework For Regulatory Reform Provides new Rules of the Road, focuses first on containing systemic risk” March 26, 2009 <https://treas.gov/press/releases/tg72.htm>

Table 2: Current account balances of the world

	(Billions of U.S. dollars)									
	2000	2001	2002	2003	2004	2005	2006	2007	2008(forecast)	
Advanced economies	-264.8	-200.9	-213.2	-209.3	-206.1	-392.2	-454.0	-368.8	-430.2	
United States	-417.4	-382.4	-461.3	-523.4	-625.0	-729.0	-788.1	-731.2	-664.1	
Euro area	-35.2	8.3	49.8	48.4	120.3	46.7	32.9	29.3	-65.5	
Japan	119.6	87.8	112.6	136.2	172.1	165.7	170.4	211.0	194.3	
Other advanced economies	68.2	85.4	85.7	129.6	126.5	124.5	130.8	122.1	105.2	
Emerging and developing economies	86.5	41.2	76.9	144.5	215.1	445.9	617.0	634.2	784.9	
Africa	8.1	1.0	-8.8	-4.1	2.1	15.6	27.8	4.0	40.1	
Central and eastern Europe	-31.4	-15.5	-23.1	-36.8	-57.6	-59.4	-87.7	-120.7	-164.4	
Commonwealth of independent states	48.3	33.0	30.3	36.0	63.8	88.3	97.7	74.3	127.9	
Developing Asia	38.6	36.6	64.6	82.5	89.3	161.5	277.6	403.4	380.0	
Middle East	71.5	39.9	30.3	59.1	97.0	204.7	253.9	257.0	438.6	
Western Hemisphere	-48.5	-53.9	-16.3	7.8	20.6	35.2	47.7	16.2	-37.3	

Remarks: Korea, Taiwan Province of China, Hong Kong, and Singapore are included in other advanced economies.

Positive figures denote surplus and negative figures denote deficits.

Source: IMF, *World Economic Outlook*, October 2008

The real economic growth of China, Japan and other current account surplus countries have depended more or less on the growth of exports, meeting the growing domestic demand of the United States. Unless these countries change the balance between domestic and overseas demand, it is no doubt that their economies continued a slowdown or falling into recession by the shrinking overseas demand, which has been already a reality. The challenge for these countries including Japan is to achieve their economic growth through increasing domestic demand.

References

IMF (2008), *World Economic Outlook*, October.

Wolf, Martin (2008), *Fixing Global Finance*, The Johns Hopkins University Press.

Warnock, Francis E. and Veronica C. Warnock (2005), "International Capital Flows and U.S. Interest Rates," Board of Governors of Federal Reserve System, *International Finance Discussion Paper*, No. 840.

Warnock, Francis E. and Veronica C. Warnock (2006), "International Capital Flows and U.S. Interest Rates," *NBER Working Paper*, No. 12560, October.

Morris, Charles R. (2008), *The Trillion Dollar Meltdown: Easy Money, High Rollers and the Great Credit Crash*, Public Affairs Ltd.

This report is intended only for information purposes and shall not be construed as solicitation to take any action such as purchasing/selling/investing financial market products. In taking any action, each reader is requested to act on the basis of his or her own judgment. This report is based on information believed to be reliable, but we do not guarantee its accuracy. The contents of the report may be revised without advance notice. Also, this report is a literary work protected by the copyright act. No part of this report may be reproduced in any form without express statement of its source.

Copyright 2009 Institute for International Monetary Affairs (財団法人 国際通貨研究所)

All rights reserved. Except for brief quotations embodied in articles and reviews, no part of this publication may be reproduced in any form or by any means, including photocopy, without permission from the Institute for International Monetary Affairs.

Address: 3-2, Nihombashi Hongokucho 1-chome, Chuo-ku, Tokyo 103-0021, Japan

Telephone: 81-3-3245-6934, Facsimile: 81-3-3231-5422

〒103-0021 東京都中央区日本橋本石町 1-3-2

電話 : 03-3245-6934 (代) ファックス : 03-3231-5422

e-mail: admin@iima.or.jp

URL: <http://www.iima.or.jp>