

US Economics Analyst

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“Dark Matter” in US International Transactions?

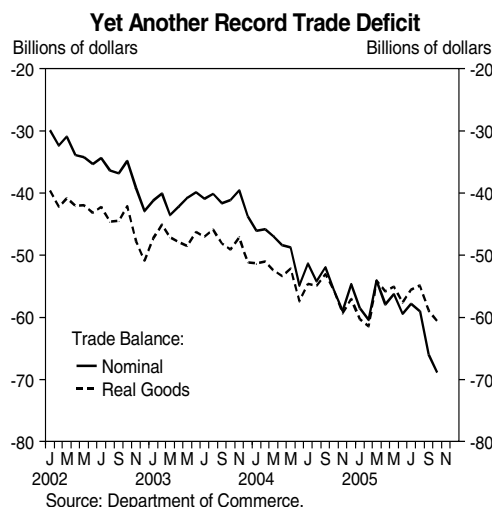
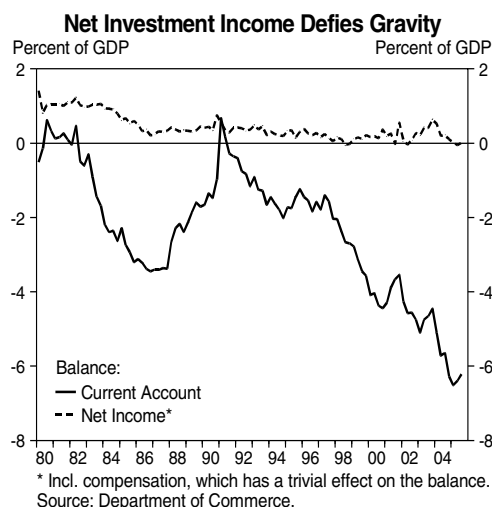
- Although the US current account deficit remains large, at more than 6% of GDP despite a slight drop last quarter, the balance of net investment income remains a bright spot. So far in 2005 it has been about flat, down from last year’s \$30 billion but still defying predictions of sharp deterioration as the nation sinks deeper and deeper into debt.
- Recently, Ricardo Hausmann and Federico Sturzenegger argued that the persistence of positive net investment income is *prima facie* evidence that the United States is not a net debtor. They claim that the balance of payments accounts overlook massive US exports of “dark matter”—in the form of knowledge, global liquidity, and insurance.
- We disagree, especially with their use of a constant P/E multiple to convert net income to net asset values, but they rightly point out that returns on US direct investment have consistently outpaced those on foreign counterparts. In recent years, lower interest rates and a falling dollar have helped as well, but with both currently moving the other way, the net income balance should deteriorate over the next year or two.
- The FOMC hiked the fed funds rate to 4.25%, as expected. Although it no longer describes policy as accommodative, “some further measured” tightening is likely.
- Softer retail and trade data added downside risk to our fourth-quarter real GDP growth forecast of 3.5% (annualized). Headline inflation eased, but core pressures have firmed lately. Meanwhile, the industrial cycle expansion looks robust.

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Trading Recommendations:

Stay short Mar '06 Eurodollar futures against long positions in 5-year swap rates 10 years forward with a stop on a close above 95 basis points. Hold a three-month straddle on 10-year swaps expiring Mar '06.

Important disclosures appear at the back of this document.

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I. Weekly Wrap-Up

Data Flow Fails to Spark Holiday Celebration

Scrooge showed up on the US economic scene, flinging a couple of disappointingly meager morsels of data at the markets. Softer-than-expected retail and trade data prompted many to mark down fourth-quarter GDP growth estimates. Although we have not done so, risks to our 3.5% (annualized) estimate do tilt to the downside. Meanwhile, core inflation remained reasonably firm and the industrial reports were more in tune with holiday cheer.

Both headline and core (excluding vehicles, building materials, and gasoline) retail sales rose 0.3% in November. Coupled with a slight downward revision to the prior month's figure, this put the core component of retail spending on a milder growth track. On the surface, in conjunction with weak auto sales, we appear to need either an upward revision to these figures or a very strong December finish to the holiday season to make our 1.5% annualized growth rate for consumer spending in the fourth quarter. However, real spending figures due for release this week may help close the gap, as prices fell sharply in November.

Despite the largest monthly drop in overall consumer prices in over 50 years, core CPI inflation barely rounded down to a 0.2% increase for the second month in a row. In other words, the index rose almost 0.5%—a 6% annual rate—in October and November combined. Although much of this two-month change reflects an anticipated rebound in hotel costs, we expect tighter capacity constraints to help push core inflation up from its current 2.1% year-over-year rate.

The trade deficit set a new monthly record of a whopping \$68.9 billion in October. A resumption in

aircraft shipments boosted exports but was overwhelmed by a surge in commodity-related imports, especially refined petroleum products imported in the wake of Hurricane Katrina's damage to Gulf Coast refineries. Thus, the narrower third-quarter current account deficit of -\$195.8 billion (helped by foreign insurance payments related to the hurricane, as well as smaller payouts to foreign subsidiaries damaged in the storm) is likely to give way to a record deficit in the fourth quarter. This week's center section explores the reasons for the persistence of a surplus in the net investment income component of the current account balance.

Industrial data were substantially more upbeat. Both the New York and Philadelphia Fed manufacturing surveys rose in December—the former unambiguously so, while the latter marred by significant drops in the new orders, shipments, and employment components. Hard data on output continue to be firm, with November industrial production up 0.7% atop an upwardly-revised 1.3% in October.

Fed: Find Your Own Accommodation

After four years and 31 meetings, the Federal Open Market Committee finally stopped using the term "accommodation" or "accommodative" to describe its monetary policy stance. With the fed funds rate at 4.25% after Tuesday's 25-basis-point increase, at least some members clearly felt that policy was at or close to a "neutral" level.

However, just because rates are closer to neutral does not mean the Fed is done. Two changes in the statement suggested that further tightening is in train. First, the Committee noted upside risks to inflation: "possible increases in resource utilization as well as

Exhibit 1: Core Retail Sales-- Steady as She Goes, in Real Terms

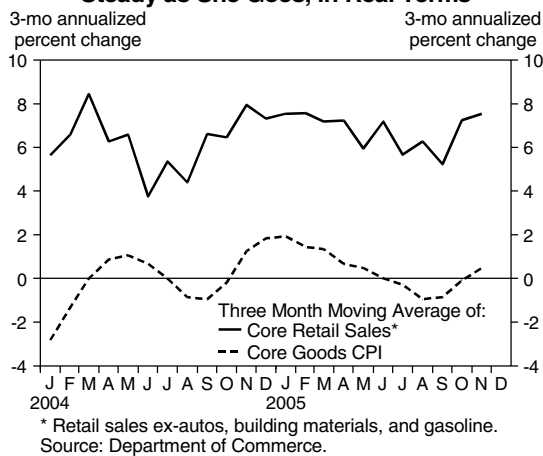
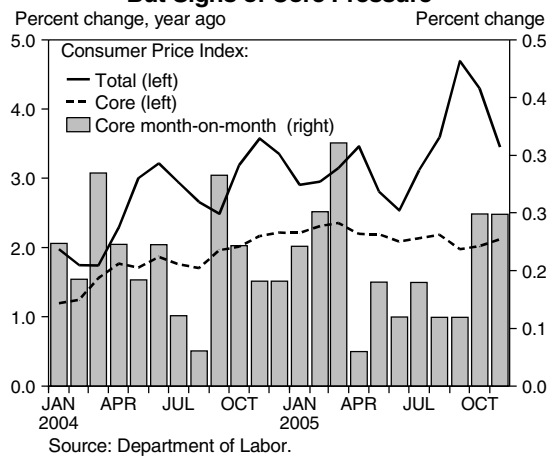


Exhibit 2: Headline Inflation Easing But Signs of Core Pressure



elevated energy prices have the potential to add to inflation pressures.” The warning about possible inflation pressures was in the last statement, but the reference to resource utilization introduces another possible source of higher inflation (an idea reinforced by this week’s industrial production report, which showed capacity utilization up to 80.2% in November versus a pre-revision 79.5% in October). This implies a focus on the growth data. Second, the statement included an explicit warning that “some further measured policy firming is likely to be needed.”

The changes in the statement certainly introduce more flexibility for upcoming meetings. But this is to be expected, both because policy naturally becomes more data-dependent as accommodation is removed and because Chairman Greenspan and the Committee probably want to give Chairman-designate Bernanke the flexibility to put his own stamp on policy beginning with the March meeting.

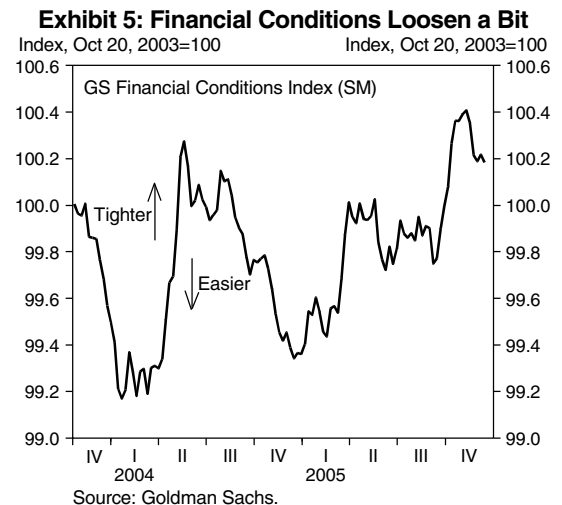
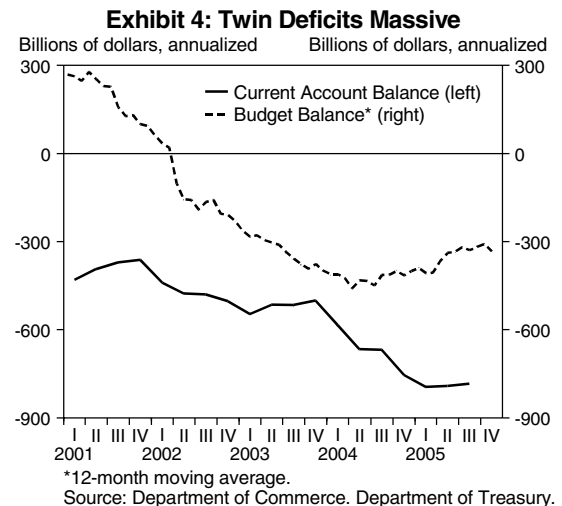
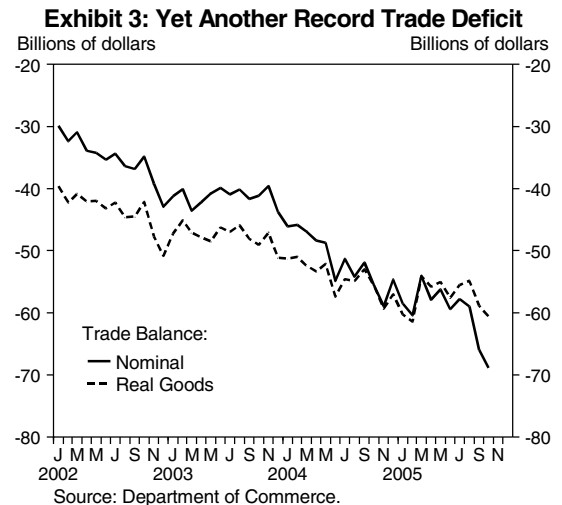
Pension Reform Moves Closer to Reality

Pension legislation moved a large step closer to passage this week with a House vote on a variety of new pension rules. The bill would require most plans to be fully funded within seven years, measure liabilities using a yield curve rather than simply a moving average of long-term corporate bonds, increase annual premiums to the Pension Benefit Guaranty Corporation to \$30 per participant from \$19 currently, and tighten up rules that allow companies to defer pension contributions. The bill now moves to conference committee with the Senate. A final compromise may also include special provisions to ease the funding requirements for the struggling airline industry and is likely to be enacted next spring before companies make their first-quarter contributions on April 15.

Market May Be Premature on End to Fed Hikes

Note: The following comments reflect trading views and may differ from our longer-term interest rate forecast.

Despite the greater flexibility now embodied in the statement, we continue to expect a 5% fed funds rate by mid-2006. At the moment, the market is pricing in only about a 50% chance that the Fed will go beyond 4½%, so we see opportunities at the short end of the curve. We would stay short Mar ’06 Eurodollar futures against long positions in 5-year swap rates 10 years forward. With the economy’s path a touch less certain and rates moving closer to neutral, we expect volatility to rise and therefore would hold a three-month straddle on 10-year swaps expiring on March 1, 2006.



II. “Dark Matter” in US International Transactions?

Although the US current account deficit remains large, at more than 6% of GDP despite a slight drop last quarter, the balance of net investment income— income earned on US assets abroad less payments on foreign assets held in the United States—remains a bright spot. So far in 2005 this balance has been about flat, down from +\$30 billion last year but still defying predictions of sharp deterioration as the nation sinks deeper and deeper into debt.

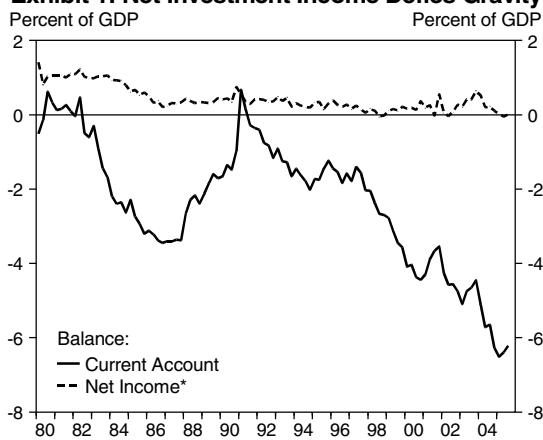
Recently, two researchers at Harvard’s Kennedy School of Government, Ricardo Hausmann and Federico Sturzenegger, argued that the persistence of positive net investment income is *prima facie* evidence that the United States is not a net debtor. They claim that the balance of payments accounts overlook massive US exports of “dark matter”—in the form of knowledge, global liquidity, and insurance.

We disagree, most prominently with the use of a single, fixed P/E multiple to convert net income to net asset values, although they rightly point out that returns on US direct investment have consistently outpaced those on foreign direct investments in the United States. In recent years, falling interest rates and a falling dollar have helped as well, but with both currently moving the other way, the net income balance should deteriorate over the next year or two.

“Dark Matter”

One of the most familiar features of the modern US economic landscape is its persistent and growing current account deficit. Except in early 1991, when foreign contributions to finance the first Gulf War pushed it briefly into surplus, the US current account has been in deficit since the first quarter of 1982, as shown in Exhibit 1. Last quarter, the deficit narrowed slightly from its record second-quarter level, but this

Exhibit 1: Net Investment Income Defies Gravity



* Incl. compensation, which has a trivial effect on the balance.
Source: Department of Commerce.

reflected large distortions to transfer payments and investment income from Hurricane Katrina. As those unwind and the trade gap continues to widen, the current account deficit is apt to approach 7% of GDP.

Against this backdrop, investors and economists alike have been consistently surprised by the absence of meaningful deterioration in the net investment balance—the difference between income earned on US-owned assets abroad and income foreigners earn on the US-based assets they own. As also shown in Exhibit 1, this portion of the US current account balance has remained positive despite the fact that the US economy has been in a progressively worsening net debt position since 1989. By the end of 2004, the market value of foreign-held US assets exceeded the market value of US-held assets abroad by more than \$2.5 trillion (21.7% of GDP).

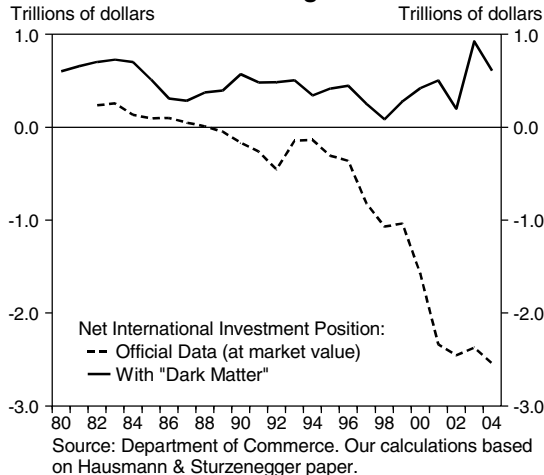
Or did it? In a recent working paper, Hausmann and Sturzenegger (HS) offered a provocative interpretation of these events. They argue that the persistence of positive net investment income is *prima facie* evidence that the United States is not a net debtor. In their words: “Once assets are valued according to the income they generate, there has not been a big US external imbalance and there are no serious global imbalances.”¹

And how do they square this conclusion with more than two decades of data saying that US imports have consistently exceeded exports, seemingly requiring net capital inflows to balance the accounts? They borrow the concept of “dark matter” from physics, saying that: “it corresponds to assets we know exist, since they generate revenue but cannot be seen (or, better said, cannot be properly measured).”² On further explanation, “dark matter” is routinely exported as: (1) good old US “know-how,” evident in a consistently superior return on US direct investment abroad versus foreign direct investment in the United States; (2) liquidity, evident in the willingness of foreign entities to hold dollars that yield no return (*i.e.*, seigniorage for providing world’s reserve currency); and (3) insurance services, evident in the role of the United

¹ Ricardo Hausmann and Federico Sturzenegger, “U.S. and Global Imbalances: Can Dark Matter Prevent a Big Bang?” http://www.ksg.harvard.edu/cid/cidpublications/hausmann_darkmatter_0512.htm, summarized in the *Financial Times*, December 8, 2005, p. 17.

² For those unschooled in physics, the authors helpfully explain that dark matter is “a term used ... to account for the fact that the world is more stable than you would think if it were held together only by the gravity emanating from visible matter.” One risk of this analogy is US budget officials may discover it.

Exhibit 2: "Dark Matter" Lightens US Debt Load



States as a gigantic hedge fund holding risky assets such as emerging market debt against a basket of safer liabilities such as Treasury and other US securities.

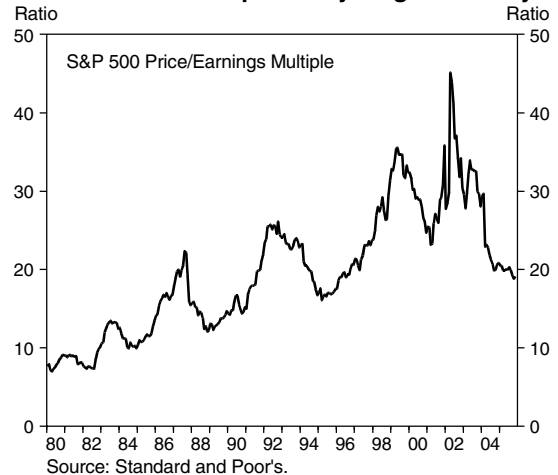
The HS claim boils down to one fact and one assumption. The fact is that net investment income in 2004 was almost identical to its 1980 value—about \$30 billion in both years. The assumption is that the net assets spinning off this income could be valued similarly, at 20 times annual earnings. As a result, US net assets at year-end 2004, valued “correctly” to include dark matter, would be +\$600 billion, the same as implied by this logic in 1980. As shown in Exhibit 2, the relatively stable path of the US net asset position according to this view stands in sharp contrast to the \$2¾-trillion deterioration in the official data.

Some Blemishes

As appealing as this picture may be, it has some major blemishes. The largest one is that not all assets should be valued at the same multiple. Assets such as equity securities and direct investments carry significantly greater risk and should therefore generate higher returns. For example, the United States is currently net long about \$1½ trillion in such assets, against a net short position of about \$4½ trillion in less risky fixed income securities. Assuming an equity risk premium of 3 percentage points, this implies an income flow of \$45 billion per year just to cover the added risk. Put differently, while the stability of net investment income has surprised most analysts, including us, at least part of it can be explained by the riskier nature of the US portfolio relative to those of other countries.

Second, even for assets of comparable risk, P/E multiples range widely over time depending on the level of interest rates, inflation, etc. For example, since 1980 the P/E multiple for the Standard and Poor’s 500 has fluctuated between 8 and 45, as shown in Exhibit 3. Because this multiple has risen on

Exhibit 3: P/E Multiple Is Anything but Steady

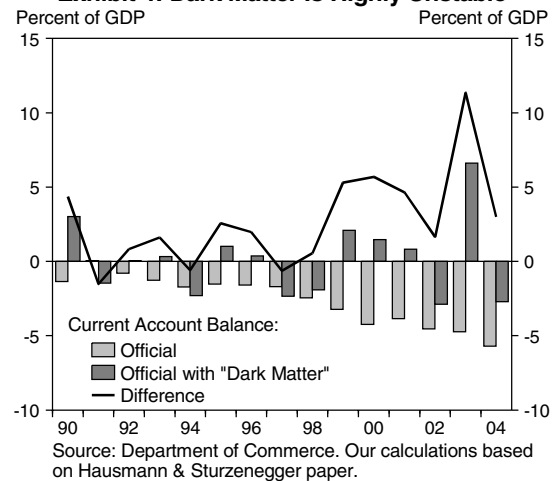


balance over the period, substituting it for a constant multiple would imply an incredible \$13.9-trillion net *improvement* in the US investment position. Our point: that the HS analysis is highly sensitive to the unrealistic assumption of a fixed multiple.

Third, even taken at face value the HS results mask a significant deterioration in the US investment position. This is because \$600 billion in net assets is far smaller in relation to the economy in 2004 than in 1980—about 5.2% versus 21.6%, a drop of more than 16 percentage points. So far in 2005, net investment income has been virtually flat. If the fourth quarter is in line with these results, the cumulative deterioration would begin to rival the 29 points officially reported for the drop in the US net investment position between 1982 and 2004.

Fourth, the implied path of current account deficits is implausibly volatile, as shown in Exhibit 4. Over the past three years, the HS calculation implies a swing in the current account balance from a deficit of \$303

Exhibit 4: Dark Matter Is Highly Unstable



billion (-2.9% of GDP) in 2002 to a surplus of \$726 billion (+6.6%) in 2003 back to a deficit of \$317 billion (-2.7%) in 2004. This in turn exposes an internal inconsistency in the HS view, namely that dark matter—described as a collection of factors that sound remarkably stable—is in fact wildly unstable.

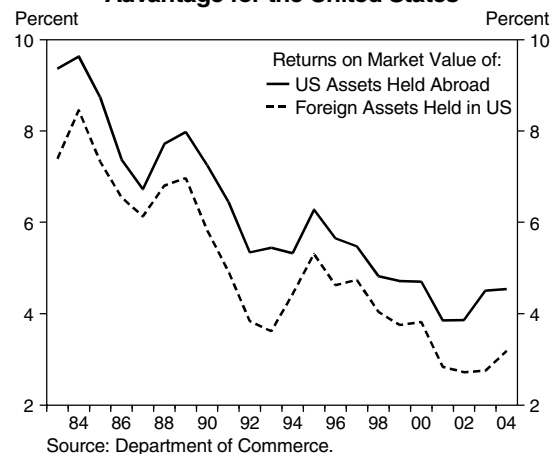
A Simple Framework

However, the HS paper is a useful reminder of the need to understand why net investment income has remained strong in the face of a deteriorating net asset position and, more importantly, whether this will continue. In our research on this “matter,” we have identified two factors that often intervene: (1) the consistent return advantage already noted in the HS paper and (2) changes in the dollar exchange rate.³ Together with basic considerations about levels and changes in interest rates, these suggest a four-part framework for thinking about movements in the net investment income balance:

1. **A current account deficit creates a baseline of deterioration in net investment income in the absence of offsetting factors.** In the simplest of situations, a current account deficit of 6% of GDP financed at the prevailing rate on short-term US Treasury notes—now about 4½%—sets a baseline rate of deterioration in net investment income of about ¼% of GDP (26 basis points) per year.
2. **The US investment advantage provides one consistent but modest offset.** Of course, cross-border flows are hardly limited to Treasury securities. As they occur in other vehicles, the US net investment balance will benefit to the extent returns on US assets held abroad exceed those held by foreigners in the United States. As shown in Exhibit 5, this return advantage does exist and has been remarkably stable over the past two decades, averaging 1.2 percentage points. Several factors appear to be at work, including a higher risk exposure for US investments (across countries and asset classes), provision of the world’s currency, and—in the minds of some observers—better management of multinational enterprises. Whatever its causes, this return advantage will benefit net investment income; the size of this effect is the return differential times gross acquisitions of financial assets abroad. As those flows are typically about 5% of GDP, the benefit is only about 5-6 basis points of GDP, or about one-fifth the baseline deterioration.

³ See “Servicing the Foreign Debt: Just a Reprieve,” *US Daily Financial Comment*, February 24, 2002; Jim O’Neill and Jan Hatzius, “US Balance of Payments—Still Unsustainable,” *Global Economics Paper* No. 70, March 11, 2002; and “America’s Short Dollar Position,” *US Economics Analyst*, May 6, 2005.

Exhibit 5: A Consistent Return Advantage for the United States



3. **Dollar depreciation can provide a bigger but more haphazard offset.** As noted on these pages back in May, the United States holds a net short position in its own currency. Most of its assets are in foreign-denominated form while foreign investors hold most of their US assets in dollar-denominated forms. Thus, dollar depreciation helps to widen the US investment edge, especially when it occurs against European currencies, where US assets are concentrated. For example, we guesstimate that the dollar’s sharp drop against these currencies boosted net income by 10-20 basis points in 2003 and 2004. However, with the dollar’s recent rebound, this effect should be moving into reverse for at least a short while.
4. **Rising interest rates add another push toward deterioration as assets turn over.** As interest rates rise and fall, returns on assets held in portfolio also rise and fall as the portfolio turns over. As a net debtor, the United States would see its net investment income improve with falling rates and decline as rates rose. For example, on the assumption of a two-year rollover of half of the net investment balance excluding direct investment, we calculate that declines in interest rates boosted the US net income balance by an average of 11 basis points between 2000 and 2003. On this same assumption, the deterioration would now be on the order of 15 basis points a year—larger than before because the net asset position has worsened in the meantime.

In short, three factors—the current account deficit itself, a brief respite from dollar weakness, and rising interest rates—point to deterioration in net investment income over the next year or two. Against this, the US return advantage offers only a small offset.

Ed McKelvey

Goldman Sachs Financial Conditions Index^{SM*}

	Latest Week**	Nov	Oct	Sep	Contribution to GSFICI Change		
					3 mo	6 mo	12 mo
GSFICI (index 1987-1995=100)	100.18	100.30	100.31	99.87	0.41	0.36	0.84
3-month LIBOR (%)	4.49	4.35	4.17	3.91	0.22	0.38	0.70
A-Rated Corporate Bond Yield (%)	5.76	5.80	5.65	5.35	0.25	0.26	0.32
GS Trade-Weighted \$ (index 1980=100)	295.25	297.70	295.96	293.22	0.05	-0.02	0.10
S&P 500 Index	1263.16	1237.37	1191.97	1225.92	-0.12	-0.25	-0.27

* Revised as described in our April 8, 2005, *US Economics Analyst*. ** Ending Wednesday.

Key US Economic Data

	Latest Monthly Data				6 Mo Trend	12 Mo Trend	Next Release
	'05 Nov	'05 Oct	'05 Sep	'05 Aug			
Nonfarm Payrolls (ch. thousands)	215	44	17	148	146	166	Jan 6
Unemployment Rate (%)	5.0	5.0	5.1	4.9	5.0	5.1	
Index of Hours Worked (% ch)	-0.1	0.1	0.3	0.1	1.8	2.1	
Average Hourly Earnings (% ch)	0.2	0.6	0.1	0.2	3.7	3.2	
Producer Price Finished Goods Index (% ch)	--	0.7	1.9	0.6	7.4	5.9	Dec 20
Excluding food and energy	--	-0.3	0.3	0.0	0.8	2.0	
Consumer Price Index (% ch)	-0.6	0.2	1.2	0.5	3.8	3.5	Jan 18
Excluding food and energy (% ch)	0.2	0.2	0.1	0.1	1.9	2.1	
Retail Sales (% ch)	0.3	0.3	0.3	-1.8	3.2	5.7	Jan 13
Excluding motor vehicles (% ch)	-0.3	0.8	1.3	1.2	10.4	9.9	
Industrial Production (% ch)	0.7	1.3	-1.6	0.3	2.9	2.8	Jan 17
Manufacturing	0.3	1.8	-0.7	0.4	4.5	3.9	
Capacity Utilization (%)	80.2	79.8	78.9	80.3	79.9	79.9	Jan 17
Manufacturing	79.4	79.4	78.1	78.8	78.8	78.7	
Housing Starts (annual rate, thousands)	--	2014	2134	2081	2066	2044	Dec 20
Single-family	--	1704	1770	1719	1728	1694	
Existing Home Sales (% ch)	--	-2.5	0.8	1.8	-1.6	3.3	Dec 29
New Home Sales (% ch)	--	13.0	0.9	-8.9	25.9	9.0	Dec 23
Trade Balance (billions, monthly)	--	-68.9	-66.1	-59.0	-61.2	-59.3	Jan 12
Merchandise	--	-73.9	-71.3	-64.1	-66.1	-64.0	
Factory Orders (% ch)	--	2.2	-1.4	2.9	13.0	9.0	Jan 4
Durable Goods	--	3.7	-2.0	3.9	19.3	11.7	Dec 23
Personal Income (% ch)	--	0.4	1.7	-1.0	4.8	5.3	Dec 22
Wages and Salaries	--	0.6	0.3	0.0	5.0	5.0	
ISM (NAPM) Index (diffusion index)	58.1	59.1	59.4	53.6	56.8	55.8	Jan 3
Consumer Sentiment U Mich (Feb 1966=100)	81.6	74.2	76.9	89.1	85.7	89.0	Dec 23
Conference Board (1985=100)	98.9	85.2	87.5	105.5	97.8	100.2	Dec 28

Note: Percentage changes are month to month for last four months, annualized for 6- and 12-month trends. 6- and 12-month figures for levels (e.g., unemployment rate) are averages over those periods.

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US Calendar

Focus for the Week Ahead

- Large bookings of commercial aircraft orders are likely to produce a surge in the Commerce Department's estimate of durable goods orders for November (December 23).
- In the housing sector, we expect a significant reversal of October's 13% jump in new home sales (December 23), although that jump does imply a rebound in starts of new homes (December 20).
- Although we estimate only a small increase in nominal consumer spending, this represents a significant gain when deflated by a deflating deflator (December 22).
- The November producer price index is apt to repeat themes of the consumer price index report, with sharp drops in energy prices far outweighing increases in both the food and core components (December 20).

Economic Releases and Other Events

Date	Time	Indicator	Estimate		
			GS	Consensus	Last Report
Mon Dec 19	13:00	Homebuilders' Survey	n.a.	61	60
Tue Dec 20	8:30	Producer Prices (Nov)	-0.8%	-0.4%	+0.7%
		Ex Food & Energy	+0.3%	+0.2%	-0.3%
	8:30	Housing Starts (Nov)	+3.0%	-0.2%	-5.6%
Wed Dec 21	7:00	GS Econ Derivs Auction for Initial Jobless Claims			
	7:00	GS Econ Derivatives Auction for GDP			
	8:30	Real GDP-Q3 Final	+4.3%	+4.3%	+4.3%
	8:30	Chain-Weight Price Index-Q3 Final	+3.0%	+3.0%	+3.0%
	8:30	PCE Core Price Index-Q3 Final	+1.2%	n.a.	+1.2%
	13:00	Fed Pres Lacker spks at Charlotte Chamber of Commerce			
Thu Dec 22	15:00	GS Econ Derivs Auction for EIA Nat'l Gas Storage			
	7:00	GS Econ Derivs Auction for Initial Jobless Claims			
	8:30	Initial Jobless Claims	n.a.	325,000	329,000
	8:30	Personal Consumption (Nov)	+0.3%	+0.4%	+0.2%
	8:30	Personal Income (Nov)	+0.4%	+0.3%	+0.4%
	8:30	PCE Core Price Index (Nov)	+0.2%	n.a.	+0.1%
	10:00	Leading Indicators (Nov)	+0.6%	+0.4%	+0.9%
Fri Dec 23	12:30	Fed Pres Lacker spks at Natl Economists Club; Wash DC			
	8:30	Durable Goods Orders (Nov)	+6.0%	+1.0%	+3.7%
	9:45	U Mich Consumer Sentiment-Final (Dec)	n.a.	89.0	81.6
	10:00	New Home Sales (Nov)	-8.0%	-8.0%	+13.0%

Interest Rates: Forecast vs. Forward Yields

	<u>3 mo</u>	<u>6 mo</u>	<u>12 mo</u>
LIBOR 3-month	4.95%	5.10%	4.90%
Forward	4.75	4.80	4.75
2-Year T-Note	4.70	5.00	4.70
Forward	4.40	4.34	4.30
10-Year T-Note	4.75	5.00	4.50
Forward	4.46	4.46	4.50

Key Numbers in the Business Outlook

	2005		2006		2005E	2006E
	<u>Q3</u>	<u>Q4E</u>	<u>Q1E</u>			
Real GDP	4.3%	3.5%	3.5%	3.7%	3.6%	
Ind. Prod., Mfg.	1.9	5.5	4.0	3.6	4.1	
CPI	5.1	2.8	2.3	3.3	2.9	
After-Tax Profits*	9.4	5.0	6.5	7.0	5.0	
Unemployment	5.0	5.0	4.9	5.1	4.8	

* Ex-inventory profits; adjusted for depreciation distortions, yr-to-yr.