Presentation to the Treasury Borrowing Advisory Committee

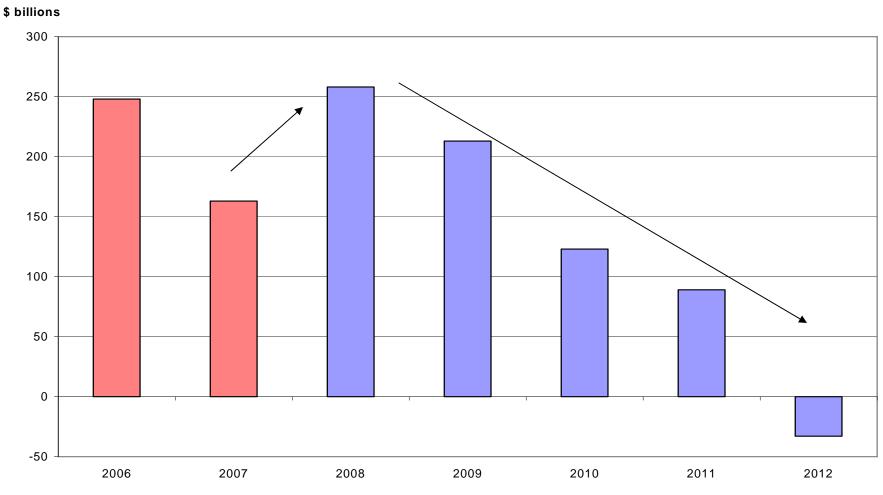


U.S. Department of the Treasury Office of Debt Management October 30, 2007

- FY 2007 budget deficit was \$163 billion
- OMB expects improvement to budget deficits after FY 2008

Projected Budget Results

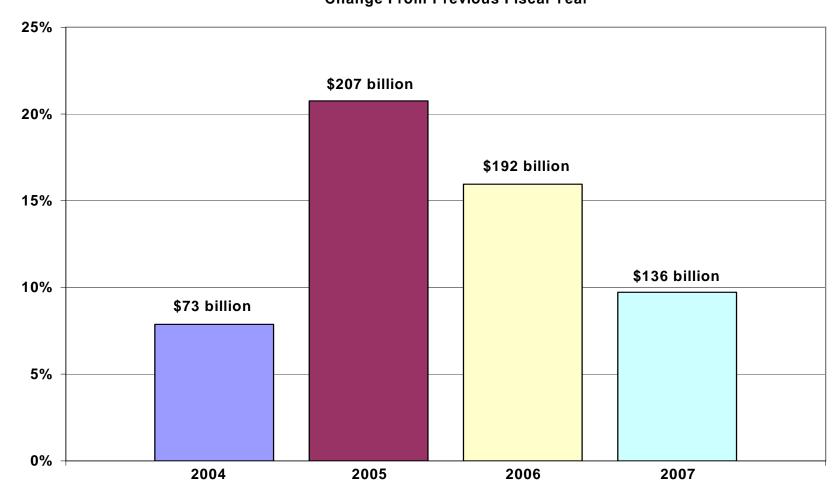
(+ Deficit/- Surplus)





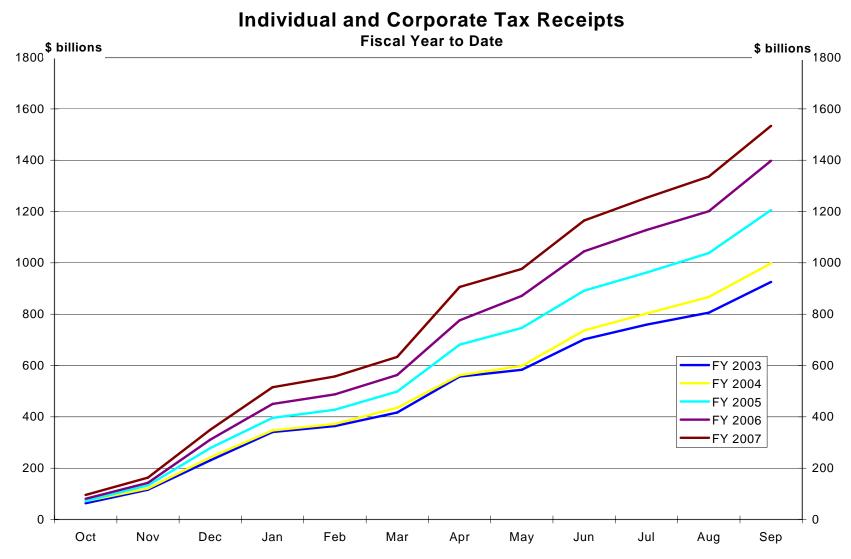
Growth in tax receipts continued in FY 2007 but at a slightly slower pace versus recent years

Fiscal Year Individual and Corporate Tax Receipts Change From Previous Fiscal Year



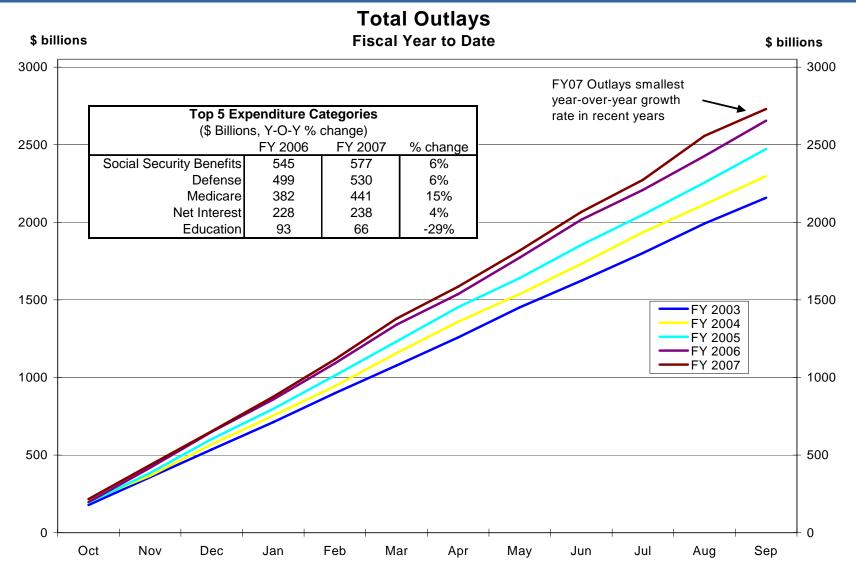


Still, FY 2007 tax receipts were almost 10 percent higher than in FY 2006





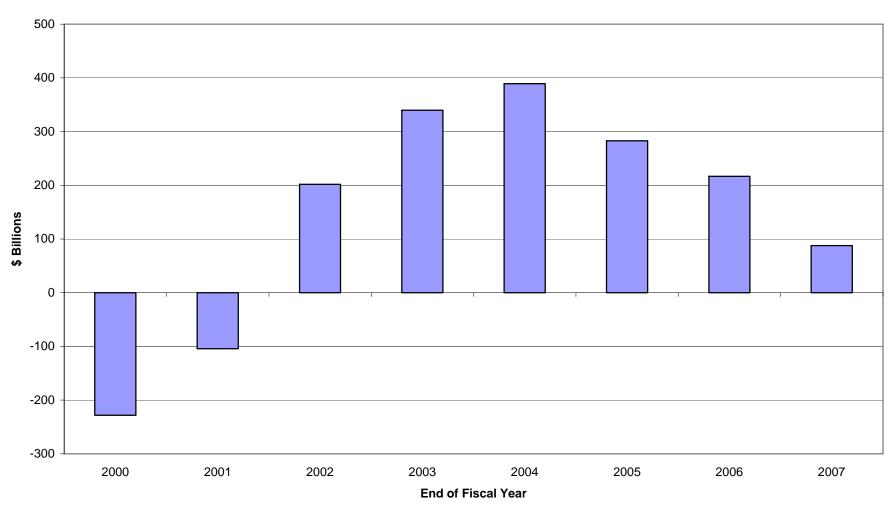
FY 2007 outlays were less than 3 percent higher than in FY 2006





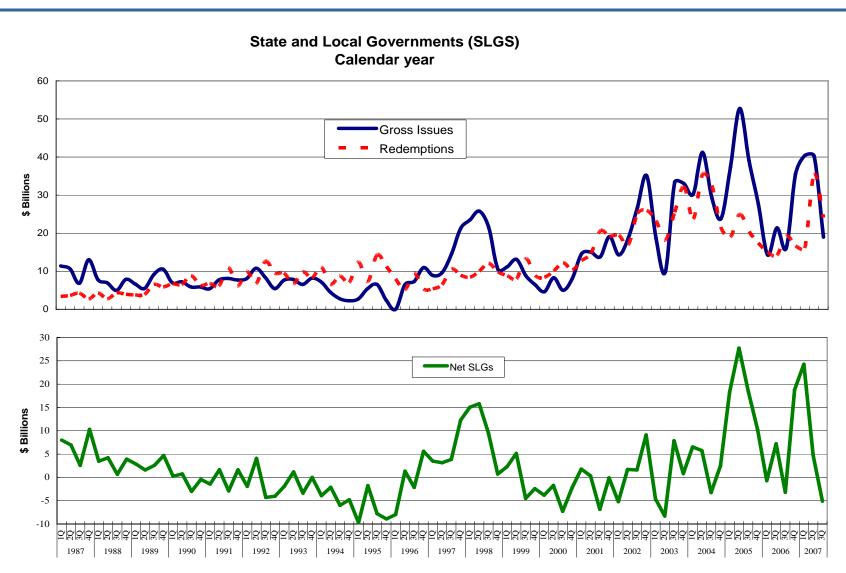
Net coupon issuance is at the lowest level since FY 2001

Net Coupon Issuance





State and Local Government Non-Marketable issuance in 2008 remains uncertain given recent volatility

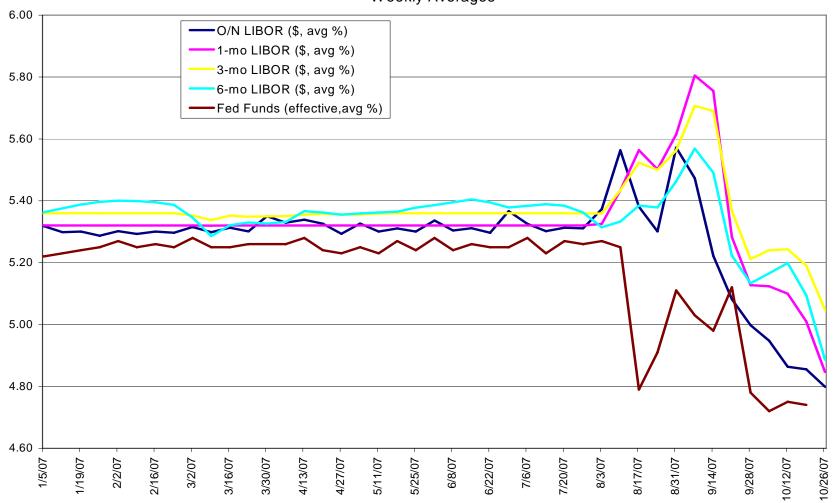




Money rates have come down since August, but volatility remains with a potential penalty to growth



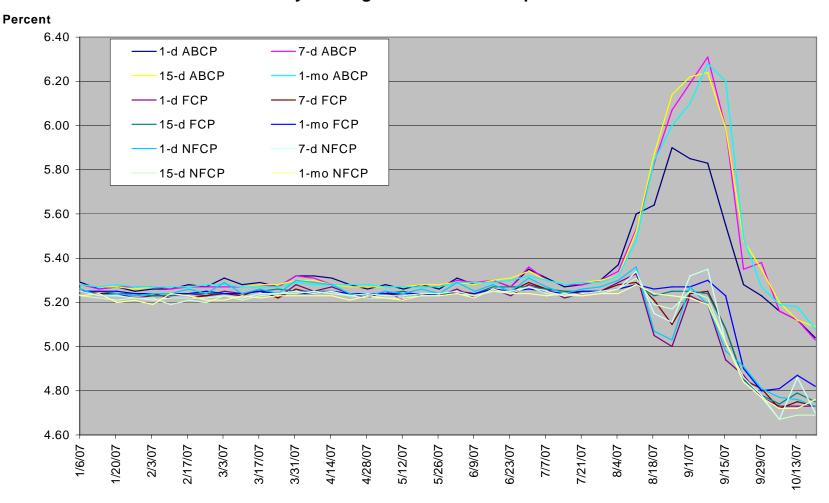
Weekly Averages





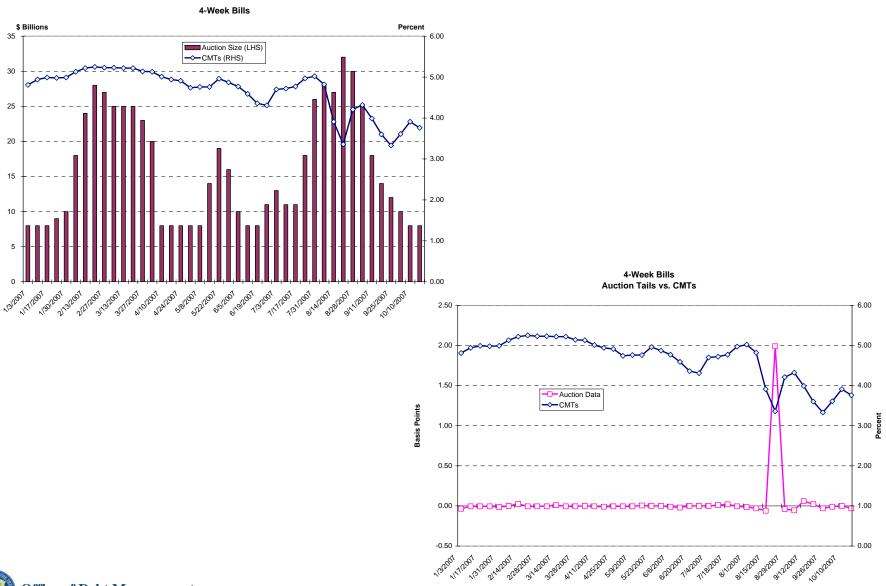
Similarly, short term rates have displayed increased volaitlity across sectors

Weekly Average Commercial Paper Rates





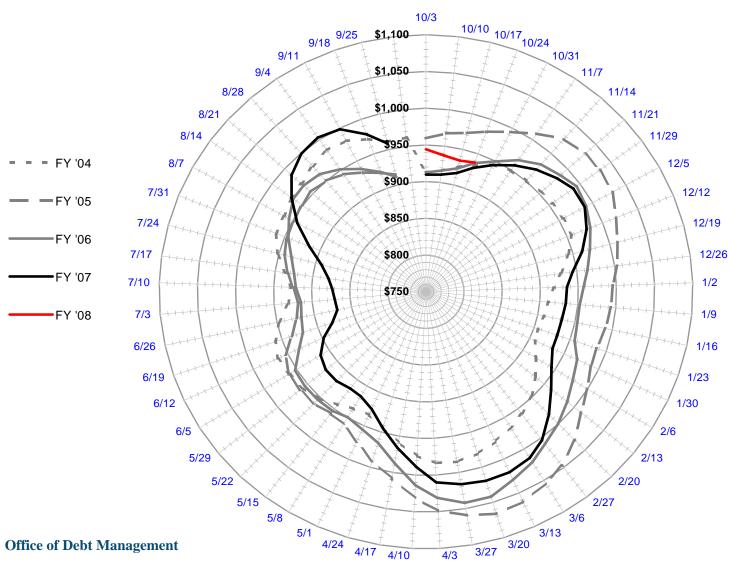
Credit concerns this past August created stress across short term markets – including the Treasury Bill market



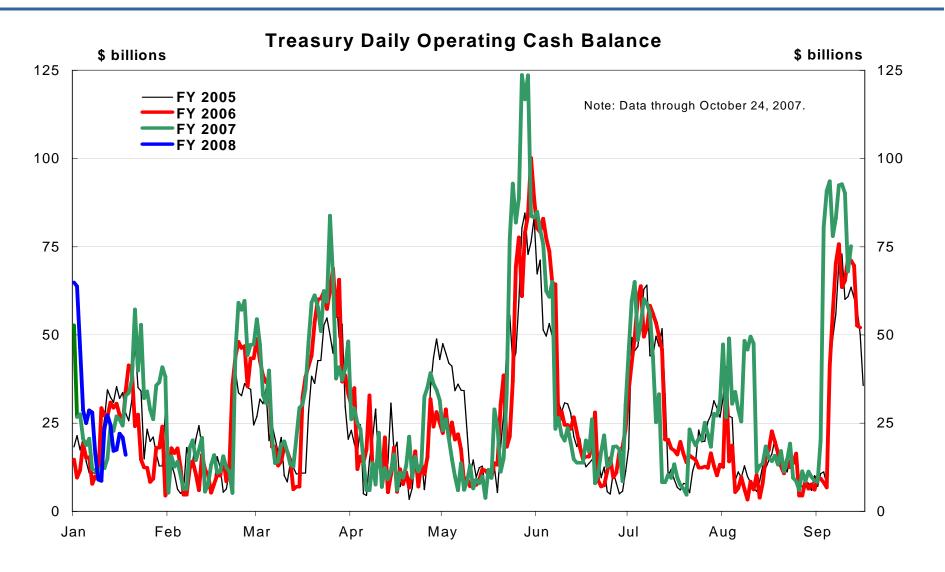


Treasury's bill issuance increased in the last quarter of FY 2007



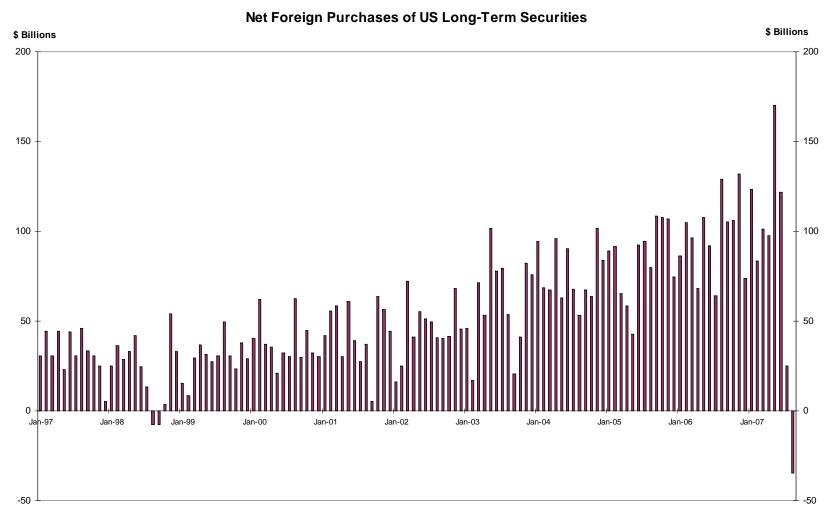


Cash volatility remains a major factor driving bill issuance volatility



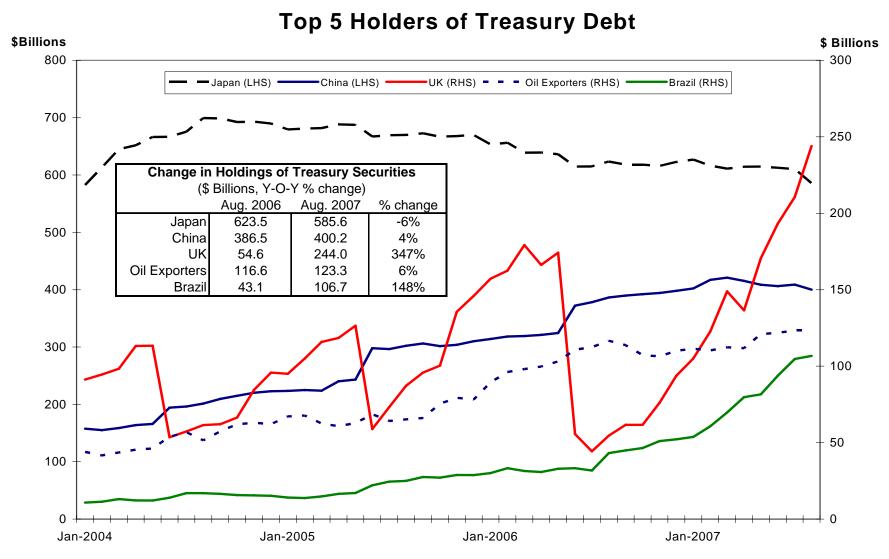


Net foreign purchases of US securities declined in August





Interestingly, however, 4 of the top 5 holders of Treasury debt have increased their holdings from a year ago





The economic outlook impacts future financing and portfolio considerations

- Treasury constantly revisits its assumptions and forecasts when making debt issuance decisions, but overall strategy remains consistent
- Debt issuance changes are transmitted to the market as transparently as possible
- During rapid changes to the economy, such changes may become more pronounced
- Treasury maintains a bias towards the shorter end of the curve
- The deficit has been cut in half ahead of schedule, and OMB forecasts a balanced budget by 2012
- We aim to preserve flexibility to address a range of fiscal outcomes



• In light of intermediate and longer-term fiscal trends, as well as recent economic and market conditions, what advice would the Committee give in terms of Treasury's debt issuance?



Treasury Borrowing Advisory Committee Presentation to the U.S. Treasury

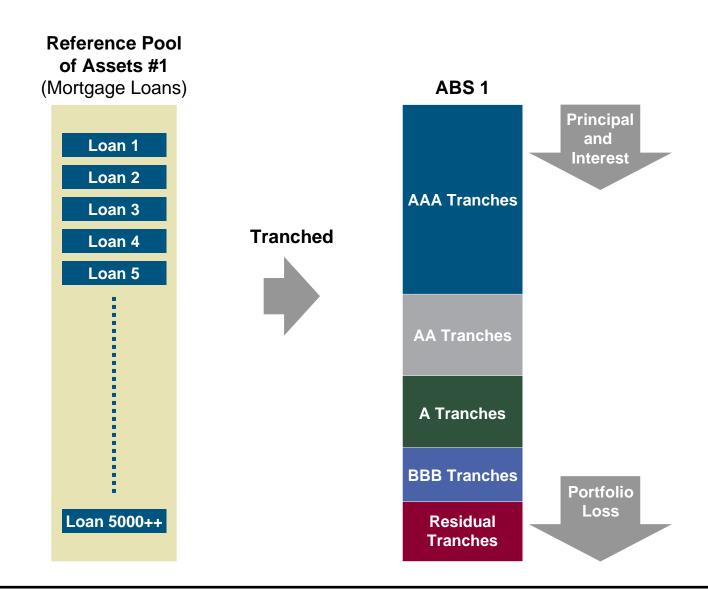
Securitization, Ratings Agencies and the Money Markets

October 30, 2007

Securitization, Rating Agencies and the Money Markets

What are the Committee's views regarding recent market dislocations in short term credit markets and their relationship, if any, with increased securitization, rating agency evaluations, and money market financing structures?

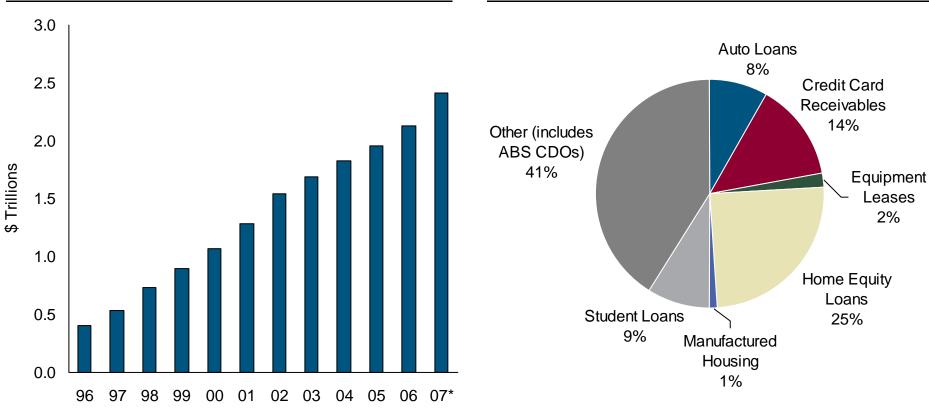
The Basic Building Blocks of Securitization



The Securitization Market Has Grown Explosively

Outstanding US ABS Issuance

US ABS Issuance by Segment



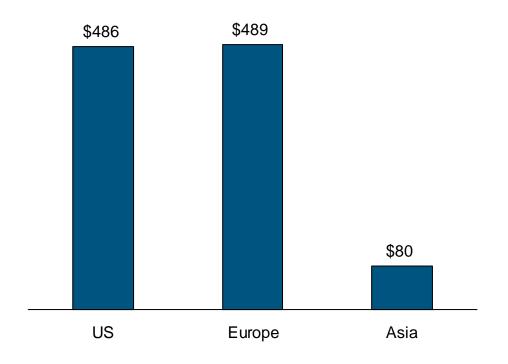
Source: The Securities Industry and Financial Markets Association

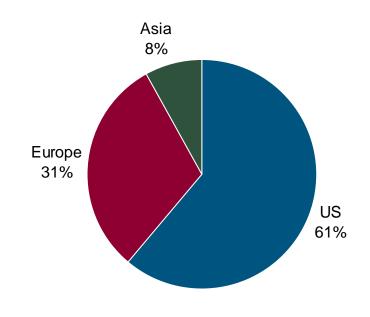
^{*}As of June 30

Geographical Breakdown of Issuance

Global Long-Term ABS Issuance (Jan-Oct 2007): \$ Billions

Share of Issuance (1996–Oct 2007)

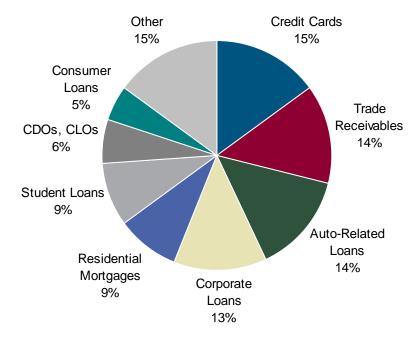




Source: JPMorgan Chase

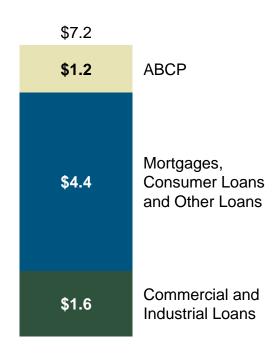
ABCP Composition and Impact on Bank Balance Sheets





Bank Balance Sheets

\$ Trillions



As of July 2007

Source: Fitch, Lehman Brothers and UBS

^{*}Representative sample of multiseller ABCP; accounts for half of ABCP outstanding

^{**}All ABCP outstanding

The Benefits of Securitization

Investors:

- Diversification
- Access to a broader array of asset classes
- Customization of cash flows (term, rating, etc.)
- Capital efficiency for regulated institutions
- Wider yield spread versus corporate debt

Originators:

- Diversify funding base
- Broader array of investors
- Engineers capacity in the financial system
- A global investor base

Subprime: Who Holds the Risk?

- Securitization/liquidity enabled each link in the securitization chain to have less and less of a financial stake in the process as time went by:
 - A borrower doesn't put any equity in the house
 - A mortgage broker gets a commission
 - An originator/bank securitizes the risk fully and frees up its balance sheet
 - An investment bank fully places the mortgage securitization and retains no risk
 - An investment bank works with an asset manager to structure and sell a CDO and collects a fee
- Liquidity in the system created an insatiable demand from the CDO buyers for ABS product, fuelling the housing boom
- Originators responded to the demand from the CDOs with more and more product with lower underwriting standards because the CDOs, bankers/underwriters and rating agencies didn't insist on it

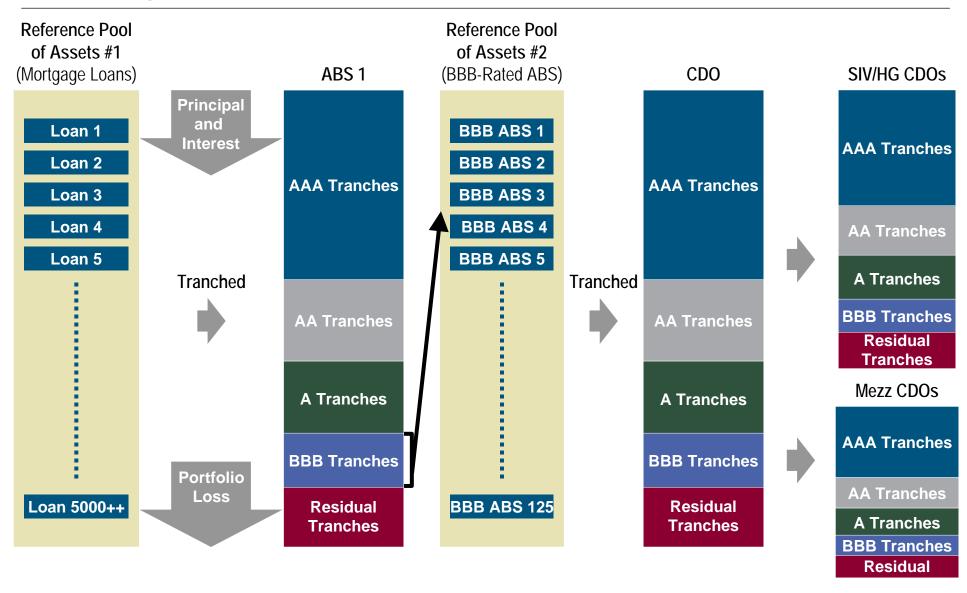
An Example: Subprime Mortgage Risk

\$ Billions

	Home Mortgages	
GSEs	\$4,300*	_
Banks	1,400	\$200
Thrifts	750	50
Finance Companies	400	50
Credit Unions	200	_
REITs	150	50
Asset-Backed Securities	1,900*	850
Total	\$9,100	\$1,200

^{*}Mortgage insurers have first-loss exposure on approximately \$700 billion of GSEs and \$100 billion of ABS Source: Federal Reserve, Lehman Brothers and AB

Expanding the Role of Securitization



Role of the Rating Agencies: What Were the Fundamental Problems?

- Optimistic assumptions were made on new untested types of mortgages
- An actuarial approach to evaluating risk with limited historical data led to a flawed model
- Most assumptions were predicated on gradual deflation of the housing bubble

Moody's Rating Volatility Analysis

US Subprime ABS Five-Year Rating Transition Matrix by Original Rating (1989–2006)

	Aaa	Aa	Α	Ваа	Ва	В	Caa or below
Aaa	96%	2%	1%	0%	0%	0%	1%
Aa	10%	76%	8%	3%	1%	0%	2%
Α	2%	8%	76%	6%	4%	2%	2%
Baa	0%	1%	5%	64%	9%	4%	16%
Ва	0%	2%	1%	6%	64%	6%	21%

Includes 1st Lien, 2nd Lien, HELOC, NIM, HLTV. Withdrawn ratings were added back to matrix at last rating level.

Moody's 2006 Vintage Rating Transitions

	Aaa	Aa	A	Ваа	Ва	В	Caa or below
Aaa	100%	0%	0%	0%	0%	0%	0%
Aa	0%	100%	0%	0%	0%	0%	0%
Α	0%	0%	44%	28%	18%	10%	0%
Baa	0%	0%	0%	17%	19%	32%	32%
Ва	0%	0%	0%	0%	6%	19%	75%

Includes home equity ABS securitizations

Source: Moody's and AB

Role of the Rating Agencies: Contributing Factors

- There is an inherent conflict of interest in the ratings business:
 - Agencies get paid per deal (based on deal size)
 - The higher the rating, the more deals that the rating agency will be asked to rate
 - Underwriters get paid per deal, and reward agencies for higher ratings and lower required subordination
- Rating agency models can be gamed: bankers try to outsmart the models
- Bankers will also shop agencies. The "norm" is that both S&P and Moody's are on all of the tranches, but at certain times bankers will select one over the other. There is a perception that the spurned agency will often change its criteria to regain market share
- Rating agencies cannot keep up with innovation and have increasingly been modelling the performance of new structures based on subjective readings of limited historical data
- Rating agencies take data from bankers/issuers "as is." They have no independent audit function/requirement to test a sample of the data for authenticity

Role of the Rating Agencies: Who Was Behind the Curve?

The Agencies

- History already shows that ratings within structured finance were in some cases flawed
- Perception is that they built ratings based on weak historical data and derived false comfort from models
- There was probably a desire not to "say no" to issuers or bankers
- Past episodes in the credit markets came and went with little consequence for the ratings agencies

Investors

- In some cases investors placed too much reliance on the agencies and derived a false sense of comfort from their ratings and the highly reputable investment banks marketing securitized deals
- Investors saw assets offering attractive returns for a given rating, and faced with regulatory constraints and other motives, engaged in "rating arbitrage"
- Recently, investors were also caught out because they were suddenly forced to mark to market illiquid securities; they did not realize at some point they may be forced to sell

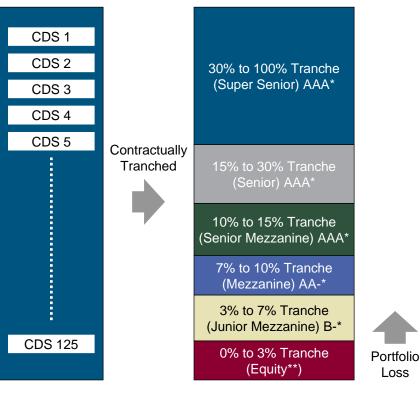
A Reminder: Securitization Risk Is Different from Traditional Corporate Risk

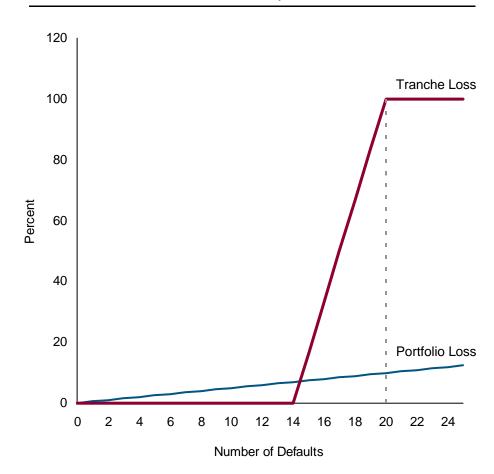
Securitization Offers Diversification/Yield Enhancement

Index vs. AA-Tranche Loss:

Tranche Size: 7% to 10%, Recovery = 50%







^{*}Implied S&P rating

^{**}Not rated

Potential Threats as Result of Securitization

- Securitization is of tremendous benefit to the financial system because it distributes risk globally to capital that is seeking returns
- But because the risk is so widely distributed to both regulated and unregulated parties there is little transparency as to where the risks reside
- While the size of the problem can be deduced in raw numbers from the size of a particular market (Subprime ABS \$850 billion), it may be difficult to predict how risk holders will behave in times of distress
- Information and transparency are lost in each step of the securitization process—from mortgage origination to mortgage securitization to the CDO. Each step is dependent on the other but relies heavily on the statistics provided by the previous holder of the risk
- At present, money market lenders, asset-backed commercial paper issuers (including SIVs), sponsors and rating agencies are still sorting out the recent market disruption associated with "mark-to-market" and short-term funding needs

Necessity of Securitization

- Securitization makes the financial system more resilient to shocks by dispersing risk
 - US subprime risk is being borne by German and Chinese banks, hedge funds, insurance companies, etc.
 This is much preferred to mortgage risk being concentrated in the hands of one industry—the banks
 (as was the case with the Savings and Loan crisis)
 - Allows all types of capital to find investors as opposed to just regulated bank capital. This helps lower the cost of borrowing for the consumer
 - Increased availability—home ownership has increased to 69% from 64% in the mid 1990s
 - Securitization and ratings help create a common language and framework for investors to trade on
- Securitization enables entrepreneurs to establish originators with much less capital than would otherwise be required. This allows for innovation and competitiveness within the system
- Securitization also allows larger/regulated banks to leverage their lending and servicing expertise without deploying as much capital as they otherwise would. This in theory should free up bank capital to lend in other areas, which in turn should be positive for the economy

What Can Be Done in the Future?

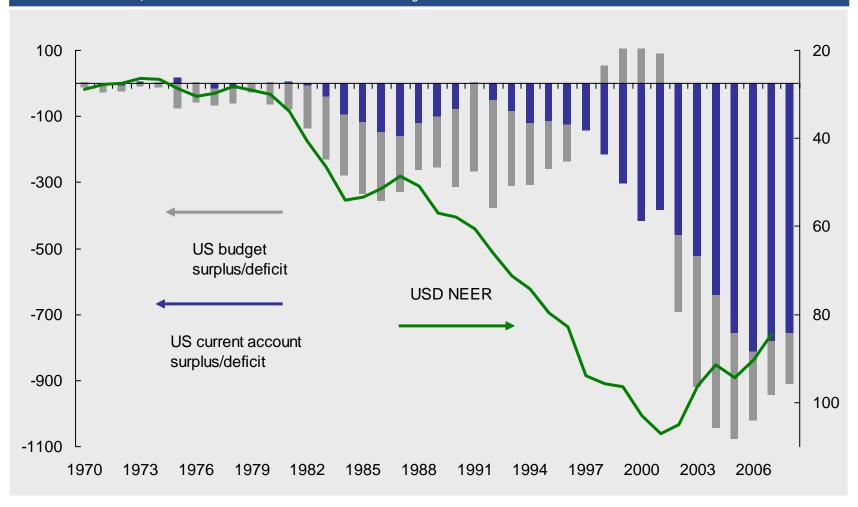
- The root cause of the current debacle is a bubble in lending. Weaknesses in the rating agency model exacerbated the situation but did not cause it
- Issuers should be forced to prepay in full for ratings, and these ratings should all be publicly disclosed or, when possible, relate payments to the long-term stability of ratings
- Ratings agencies and underwriters might be persuaded to adopt such measures as a "voluntary code of good practice" in exchange for their almost duopolostic/oligopolistic status
- Agencies should consider adding a "liquidity score" to their ratings, granting a high score only if there is a listed and well-quoted market
- Repo counterparts should be encouraged to be more cautious with respect to "pledged" collateral. Regulators should consider mandating capital charges on certain instruments that are commensurate with liquidity scores
- On the heals of over two million sub-prime owners struggling to keep their homes, "truth in lending" practices should be re-evaluated by policy makers
- Ultimately, investors must recognize that structured finance events are low frequency but high severity in nature

Treasury Borrowing Advisory Committee Presentation to the U.S. Treasury

Current and future demand for US Treasuries

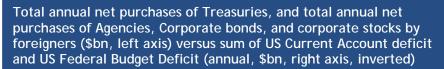
Current account and budget deficits

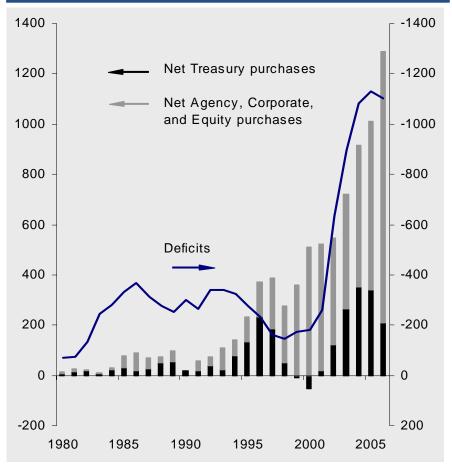
Annual US budget surplus/deficit and current account surplus/ deficit (USD bln; fiscal year total with CBO and consensus estimates for 2007 and 2008*) versus US nominal broad effective exchange rate



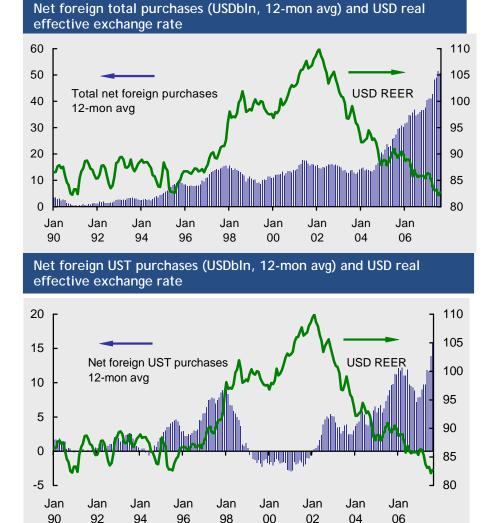
Source: US Treasury, CBO, and JPMorgan; Consensus estimate for 2007 and 2008 provided by Consensus Economics Inc.

Strong foreign demand has funded the US deficit...



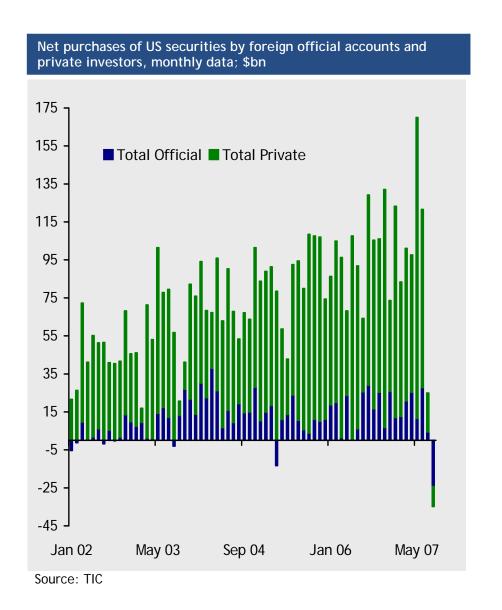


Source: TIC, Bureau of Economic Analysis, Treasury Department

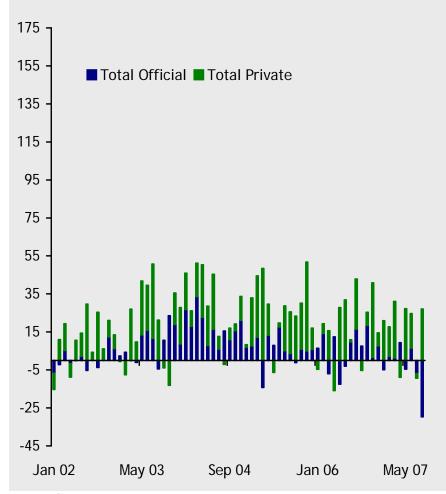


Source: US Treasury and JPMorgan

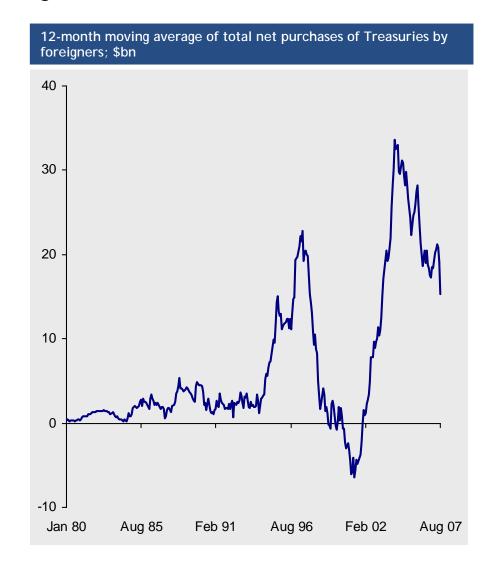
...from both private and official sources



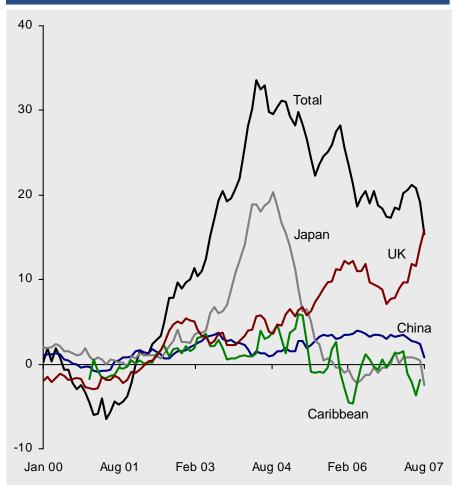
Net purchases of Treasury securities by foreign official accounts and private investors, monthly data; $\$



Foreign demand for Treasuries has evolved over time

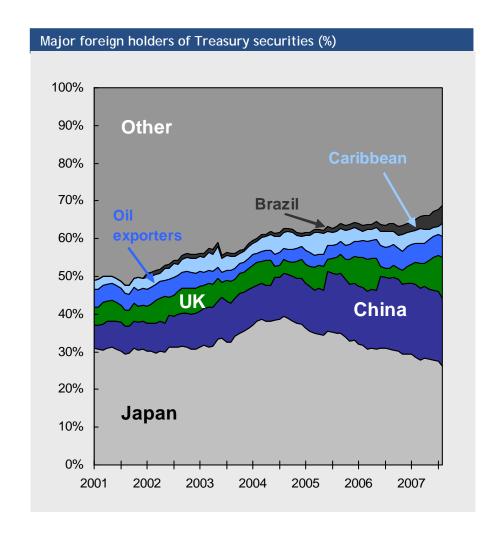


12-month moving average of total monthly net purchases of US Treasuries by foreigners, and 12-month moving average of monthly net purchases by China, Japan, Caribbean, and UK; \$bn



Source: TIC

Japan and China remain the largest holders of Treasuries



Source: TIC

Major foreign holders of Treasury securities (\$bln)

		4 1 10 44	
Aug	just 2007 (end	• '	
	level	<u>share</u>	yr/yr change
Japan	585.6	26.2%	-6.1%
China	400.2	17.9%	3.5%
United Kingdom 2/	244.0	10.9%	346.9%
Oil Exporters 3/	123.3	5.5%	5.7%
Brazil	106.7	4.8%	147.6%
Caribbean Banking Centers4/	76.3	3.4%	-4.1%
Luxembourg	63.9	2.9%	9.4%
Hong Kong	56.2	2.5%	10.8%
Taiwan	52.2	2.3%	-15.7%
Korea	48.9	2.2%	-22.9%
Germany	44.8	2.0%	0.2%
Singapore	34.9	1.6%	0.6%
Mexico	32.9	1.5%	-18.4%
Switzerland	31.3	1.4%	-17.8%
Turkey	27.6	1.2%	15.0%
Canada	24.9	1.1%	-12.0%
Netherlands	21.2	1.0%	26.9%
Thailand	20.1	0.9%	24.8%
France	16.8	0.8%	-28.8%
Sweden	16.5	0.7%	22.2%
Russia	13.1	0.6%	98.5%
Poland	13.0	0.6%	-3.0%
Ireland	12.9	0.6%	-14.6%
Italy	12.7	0.6%	-10.6%
Israel	11.6	0.5%	87.1%
Belgium	11.3	0.5%	-22.1%
India	10.9	0.5%	-19.3%
All Other	117.5	5.3%	-13.7%
Total	2231.2	100.0%	9.5%
Foreign Official	1427.6	64.0%	-0.1%
Foreign Official Bonds	1247.7	55.9%	-5.4%
Foreign Official Bills	179.8	8.1%	0.7%

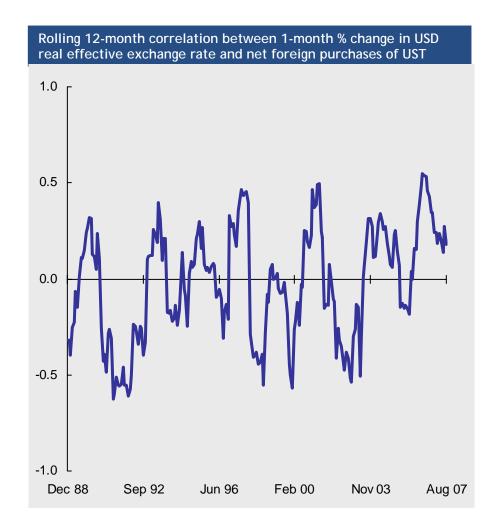
^{1/} Estimated foreign holdings of U.S. Treasury marketable and non-marketable bills, bonds, and notes reported under the Treasury International Capital (TIC) reporting system are based on annual Surveys of Foreign Holdings of U.S. Securities and on monthly data.

^{2/} United Kingdom includes Channel Islands and Isle of Man.

^{3/} Oil exporters include Ecuador, Venezuela, Indonesia, Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, the United Arab Emirates, Algeria, Gabon, Libya, and Nigeria.

^{4/} Caribbean Banking Centers include Bahamas, Bermuda, Cayman Islands, Netherlands Antilles and Pana Beginning with new series for June 2006, also includes British Virgin Islands.

Structural factors, not market dynamics, have driven US Treasury demand

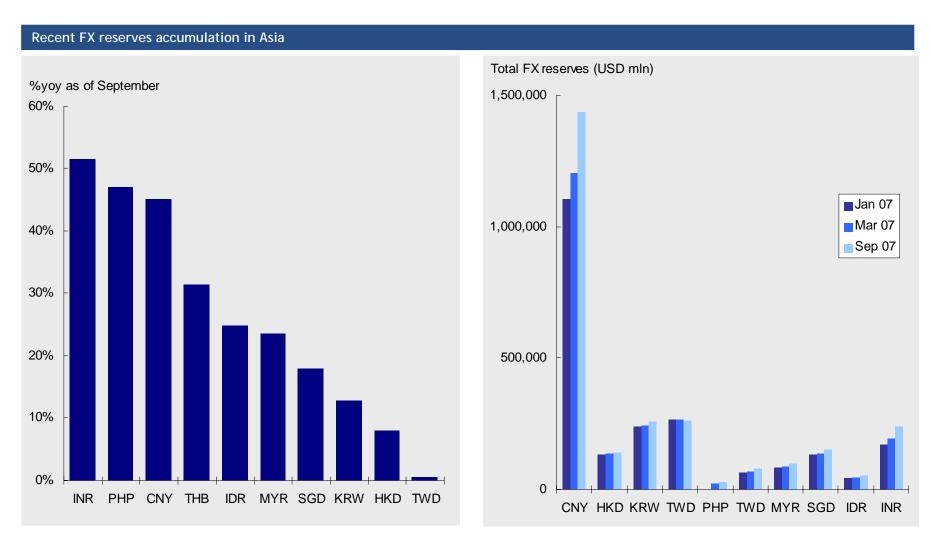




Source: JPMorgan and US Treasury

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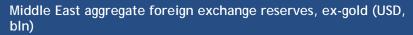
Reserve growth continues at rapid rate in emerging Asia...

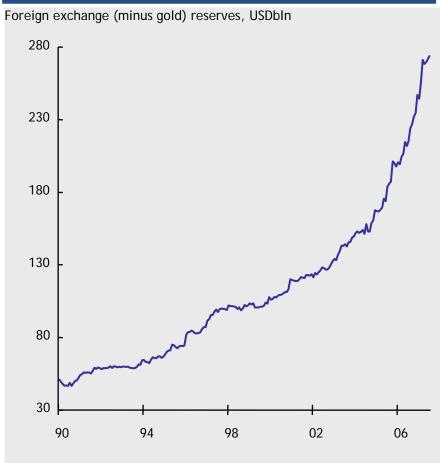


Source: Respective central banks

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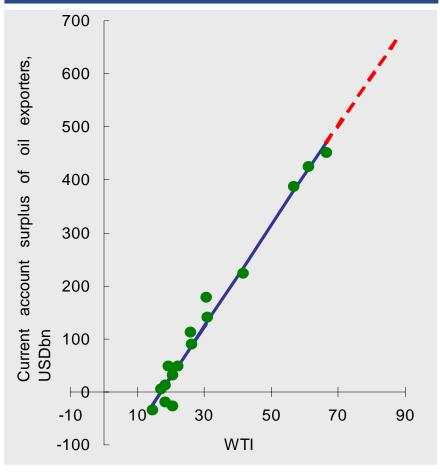
...and in oil exporting countries





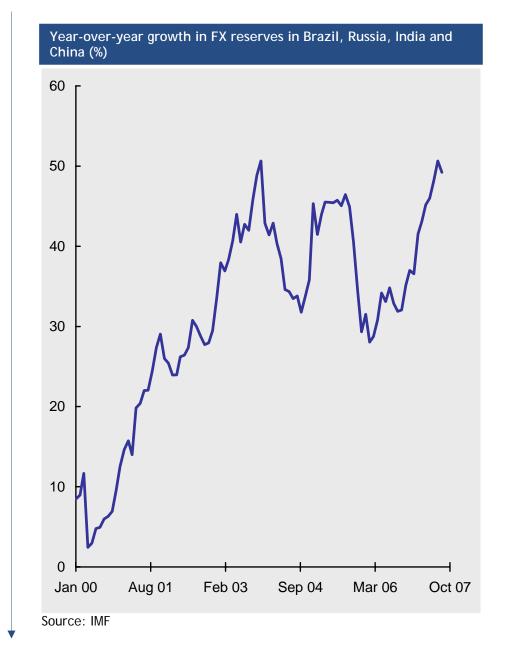
Source: IMF

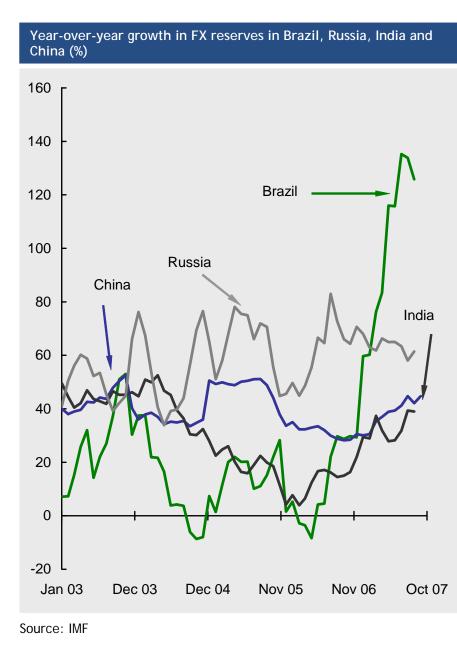
Regression of current account surplus of oil exporting countries (USDbIn) and annual WTI average price (\$/bbI) over last 15 years



Source: World Economic Outlook

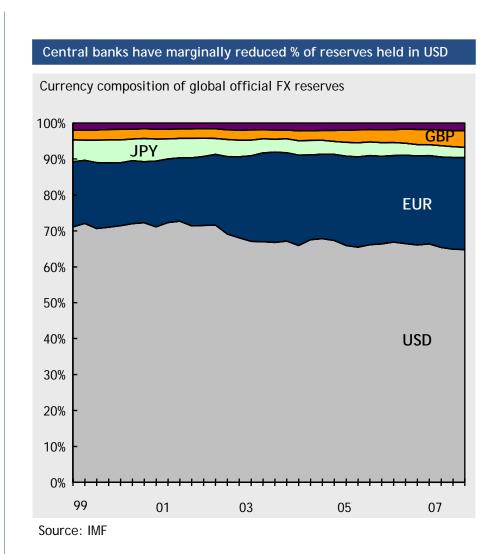
Focus on BRIC - Brazil reserves appreciating most quickly



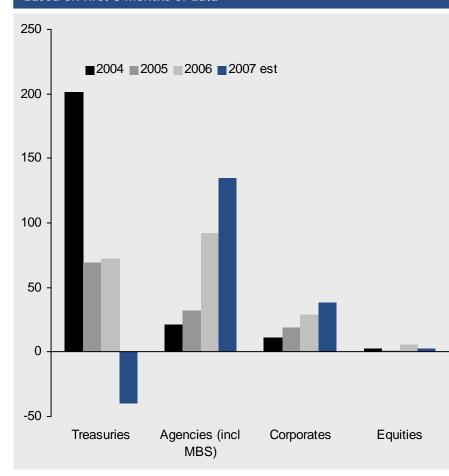


Diversification trends:

Central bank reserve diversification



Official foreign flows, by asset class (\$bln); 2007 full-year estimate based on first 8 months of data

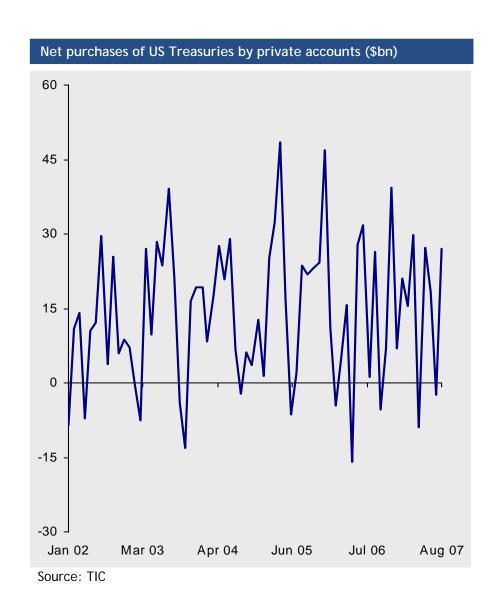


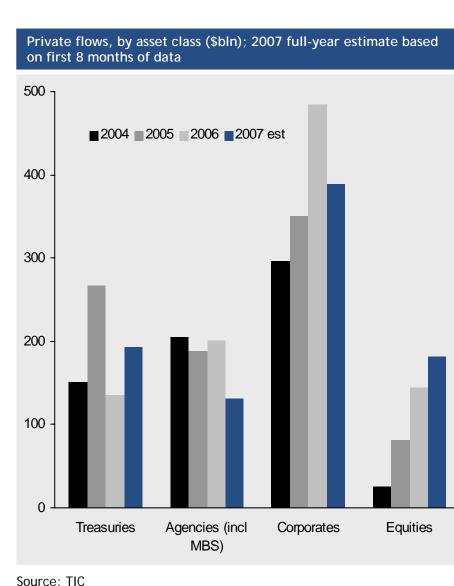
Sovereign Wealth Funds: an alternative investment for central banks

		Assets under management		
Country	Sovereign Wealth Funds	(approximate, USDblns)	Source	Inception year
UAE	Abu Dhabi Investment Authority	500-1000	Oil	1976
Norway	Government Pension Fund	more than 300 (as of April 2007)	Oil	1990
Kuwait	Kuwait Investment Authority	150-250	Oil	1960
Russia	Oil Stabilization Fund	122 (as of June 2007)	Oil	2004
China	China Investment Corporation	200	Other	2007
Singapore	Government of Singapore Investment Corporation	200-330	Other	1981
Sovereign e	external assets			
Saudi Arabi	a Monetary Agency and govt. institutions	276	Oil	1952

Sources: Norges Bank, Saudi Arabian Monetary Agency, Ministry of Finance in Russia, Government of Singapore Investment Corp., Pacific Management Investment Company (PIMCO), JPMorgan and Toloui (2007). Kuwait assets based on PIMCO estimates

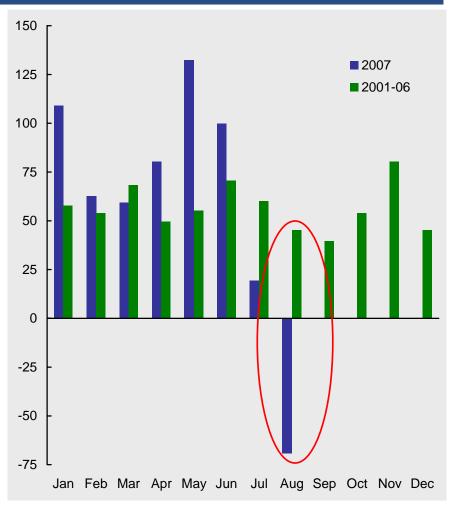
Private foreign UST purchases have remained robust even though asset allocation has shifted



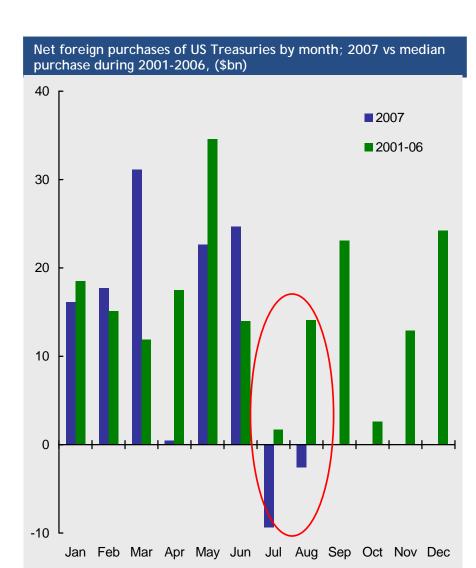


The August TIC report

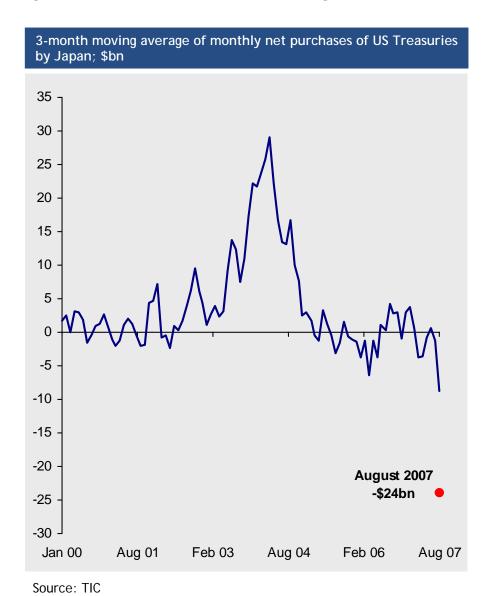
Net foreign purchases of long-term US securities by month; 2007 vs median purchase during 2001-2006, (\$bn)

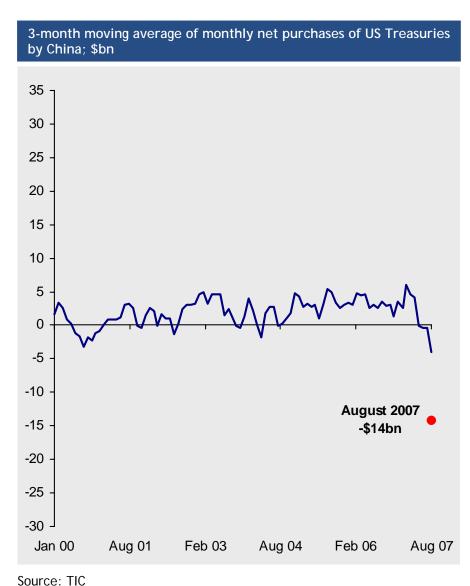


Source: TIC

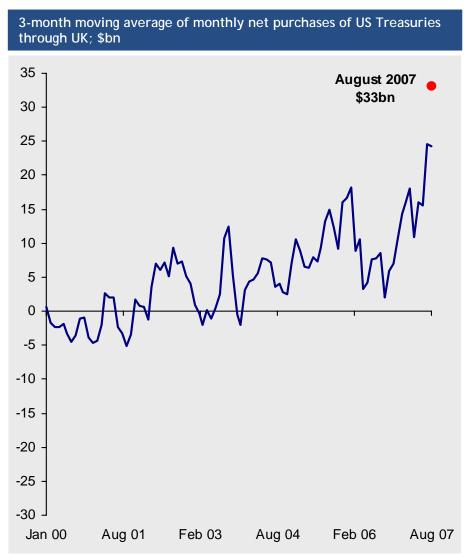


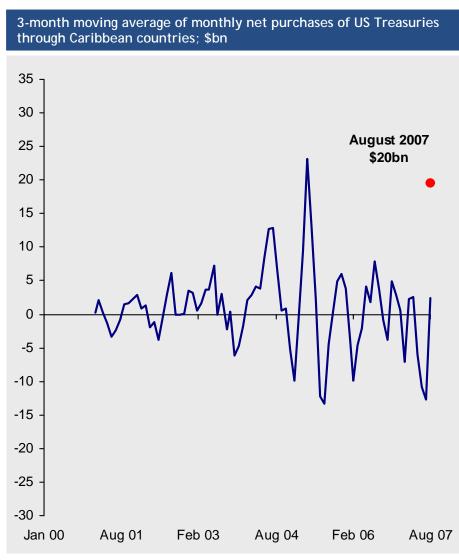
August showed a meaningful decline in Asian UST demand...





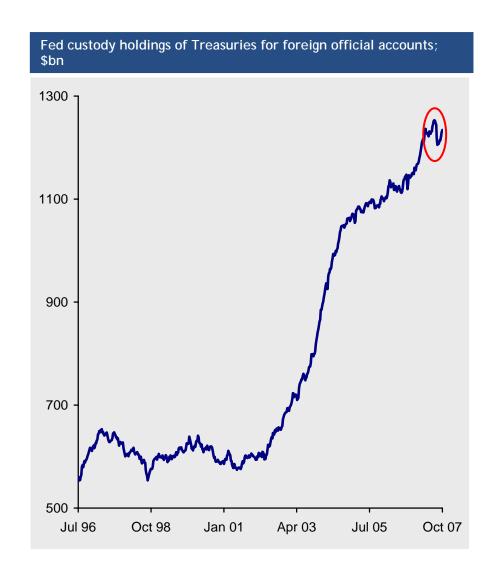
...however, flows from other key regions remained supportive

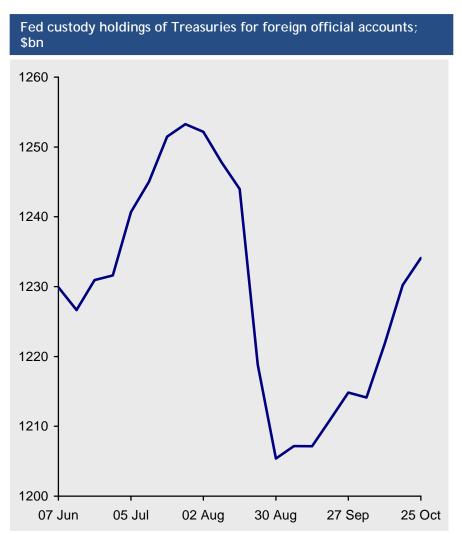




Source: TIC Source: TIC

Recent Fed custody data suggest a moderate rebound in net foreign purchases of Treasuries





Source: Federal Reserve Source: Federal Reserve

Key issues for gauging future Treasury demand

- International currency policy and FX reserve accumulation
- Investment of FX reserves
- Foreign private flows
- US economic outlook
- Geopolitical issues
- Pension fund demand
- Entitlement changes