

Alert

LSE:HSBA

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HSBC Holdings PLC
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Banking	INDUSTRY
85.46 billion	MARKET CAPITALIZATION
£7.06	RECENT CLOSING PRICE
8.70	PRICE-EARNINGS RATIO

Earnings Quality Thesis

HSBC Holdings is one of the few major banks in the world whose stock has held up reasonably well this year. In this report, we raise concerns about the adequacy of the company's loan-impairment reserves. In addition, we identify several accruals in the past year that suggest the possibility that reported earnings have been overstated relative to economic income. Moreover, we show that a substantial portion of the firm's recent earnings appear to be paper gains due to foreign-exchange shifts that are expected to reverse sharply in H2 of 2008. When we construct our own estimate of sustainable earnings and adjusted book value and apply our proprietary model of bank-stock valuation, we estimate that HSBA is overvalued by 29%. For these reasons, we are initiating coverage of HSBA with an Earnings Quality Grade of F.

EARNINGS QUALITY GRADE

Scale A - F

F

Loan-impairment allowance barely half of what we'd expect *pg 4*

At 06/30/08, HSBC had an allowance for loan impairments of \$20.6 billion, which is 1.9% of total loans but only 95% of non-performing loans. Especially worrisome is that the allowance can only cover 1.04 years of annual charge-offs by our estimation. If the global economy weakens further, the allowance is unlikely to be sufficient and will require substantial additional provisions. Based on the methodology we've applied to other banks, we believe a more appropriate allowance is \$39.6 billion, requiring a boost of \$19.0 billion, or roughly £1.04 per share at the current exchange rate.

Big losses on securities, but gains on the income statement *pg 7*

HSBC's available-for-sale (AFS) securities portfolio includes a significant amount of potentially toxic asset-backed securities. Accrued losses on the AFS portfolio were \$7.3 billion on 06/30/08, which represents a sharp reversal from the net gain of \$2.4 billion reported on 06/30/07. Despite the heavy losses, HSBC claimed a net gain of \$1.5 billion on the AFS portfolio in the past 12 months. Thus, earnings may not have been reflective of economic reality during this period. This may require HSBC to report large impairment losses in the near future.

Many serendipitous unsustainable boosts to earnings *pg 13*

Notwithstanding the deteriorating economic environment, a number of one-time earnings boosts have bolstered reported profits. These boosts include avoidance of goodwill impairments taken by subsidiaries, earnings gains from fair valuation of the firm's own debt and subsidiary stock sales, drawing down tax reserves, and the benefit of favorable exchange rates. The total impact of these unsustainable items was \$12.1 billion over 18 months. However reversals of some of these items may push earnings down significantly in the near future.



Company Background and Introduction to the Thesis

COMPANY BACKGROUND

HSBC Holdings PLC (Hongkong and Shanghai Banking Corporation) is one of the world's largest and most geographically diversified banks. The bank was founded in Hong Kong in 1865 and relocated its headquarters to London in 1993. Through a series of acquisitions, it has become a major firm in Europe (51% of its assets), North America (21%), Latin America (5%), and Asia-Pacific (23%). With over \$2.5 trillion in assets, it is one of the largest banks in the world. Its \$19 billion in reported profits for 2007 topped that of all other banks worldwide. The company trades on both the London Stock Exchange (HSBA) and Stock Exchange of Hong Kong (5) and has an ADR traded on the New York Stock Exchange (HBC). The firm's most recent filing is the semi-annual interim report as of 06/30/08, released on 08/04/08. The company's reporting currency is the U.S. dollar and its accounting principles are IFRS.

RECENT RESULTS

Unlike many other banks in Europe and the U.S. (where the bulk of HSBC's assets are located), HSBC has continued to report robust profits this year (\$7.7 billion attributable to shareholders in H1 2008). Although down 29% YOY, HSBC's results were much better than most other banks, even in relative terms. Because earnings have held up reasonably well and the bank has expressed no need for any bailout funds, the stock price is down just 15% over the last 12 months, versus a much more significant decline of 52% for all large capitalization U.S. banks (those with market capitalization of at least \$10 billion one year ago).

One reason that HSBC shares have held up better than many of its peers is the firm's global footprint. The firm's largest single-country concentration is in the U.K. (an estimated 38% of total assets),¹ but the company's operations are widespread across the globe. This offers a high degree of geographic diversification that in principle should protect the company from economic problems in any single country (like the mortgage crisis in the U.S.).

OUR CONCERNS

While earnings as reported to date have held up reasonably well, we have questions about whether the reported numbers are representative of the company's true economic prospects. One of our primary concerns is a potentially insufficient amount of loan-impairment reserves, which we believe should be \$19.0 billion higher. Part of this shortfall can arguably be attributed to a more lenient treatment of loan-loss reserves under IFRS (relative to U.S. GAAP). But we believe that it largely reflects management's overly optimistic expectations regarding global economic conditions. In any case, we believe the less-conservative reporting of loan losses may have substantially overstated HSBC's reported profits and capital level (relative to economic reality), creating the

¹ The estimate is based on the percent of European loans and advances in the U.K. times the fraction of worldwide assets in Europe. No direct measure of country-specific assets is provided by the firm in its interim report.



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appearance of a well-capitalized bank. If, as we expect, the financial crisis continues to spread throughout the world, HSBC's diversification will prove of little protective benefit and the firm could be overwhelmed by loan losses. The company is not interested in bailout funds this year, but next year could prove a different story.²

In addition we are concerned about the accumulation of large unrealized losses (\$7.3 billion) on a securities portfolio that includes a substantial quantity of low-grade mortgage-based securities and CDOs. The situation is particularly troublesome because HSBC has accumulated these losses in the equity section of the balance sheet, without first recognizing them in income. With losses bypassing the income statement, the company was able to simultaneously report net *gains* on the income statement. We believe this situation is destined to reverse sharply with substantial losses flowing through income eventually.

Compounding these concerns is the likelihood that the firm's earnings have benefitted materially from several unsustainable accruals (such as draw-downs of tax reserves and recording fair-value gains due to credit-quality deterioration in the firm's own debt). If these accruals are reversed, then recent earnings performance is less robust than it seems. Looking at trends over the past two years, HSBC's earnings growth has been due largely to movements in foreign-exchange rates. This result reflects the fact that the company's reporting currency, the dollar, has fallen while 4/5 of the company's activities (and all of its earnings of late) are outside the U.S. The translation of these foreign-currency-denominated activities has resulted in paper gains. However, the "benefit" from these paper gains is expected to reverse sharply in H2 2008, with a predicted negative impact on HSBC's performance in the near future (estimated by us to be \$2.4 billion over the next 12 months).

Taking all of these concerns together, we estimate economic annual earnings for the company of \$17.3 billion. But as this estimate is based on favorable economic conditions that are unlikely to prevail in the near term, and given our expectation of catch-up loan-impairment provisions and the realization of securities losses that have been temporarily stored in equity, we would expect much lower earnings (most likely a loss) in the next few reporting periods. We also estimate a net asset value of \$53.2 billion or just 2.2% of assets as of 06/30/08—or 58% lower than reported.

As to valuation, we believe the firm's unsustainable recent results may have resulted in significant overvaluation. In our *Issue Commentary* of 10/20/2008, we outlined a valuation model for U.S. banks. If we apply that model to our estimates of net asset value and sustainable earnings for HSBC, we derive an expected stock price of £5.06, suggesting HSBA may be over-valued by approximately 29 percent.

² We'll leave aside the question of what country could (or would) bail out this global behemoth if necessary. Perhaps a coordinated action involving the U.K., EU, U.S., and China would be feasible, but such a group action would be difficult to negotiate and probably very messy.





Potential Under-Accrual of Loss-Impairment Allowances

IFRS TREATMENT OF LOAN LOSSES

Before addressing HSBC's loan-loss situation, we need to first discuss how these losses are treated under IFRS, as it differs significantly from U.S. GAAP. Under U.S. GAAP, the approach to recording loan-loss provisions (an expense) is partly *proactive* and partly *reactive*. U.S. GAAP is *proactive* in the sense that it requires a bank to record a loss provision at the time of loan initiation based on the estimation of probability the loan will go bad and default. This is a relatively more conservative approach that departs from the way U.S. GAAP handles impairments for most other assets (such as PP&E, Goodwill, and so on). However, U.S. GAAP also employs a *reactive* approach to loan losses in that estimated impairment rates need to be revised frequently in light of actual experience. This has caused a surge in so-called "over-provisions" reported by most, if not all, U.S. banks since H2 2007. These "over-provisions" became necessary because many banks had badly underestimated future credit losses at the time of the original loan initiations, leading to a series of "under-provisions" in prior years.

IFRS takes an approach that is conceptually less conservative, although more consistent with impairments to other assets. Under IFRS, there is no provision recorded at the time of loan origination. It is only after a loan, or group of loans, becomes impaired that loan impairment expense is recorded. Thus, in contrast to U.S. GAAP, IFRS tends to be almost entirely reactive in its approach to recognizing bad debt provisions.

One area of similarity between IFRS and U.S. GAAP is the use of a *collective impairment* approach to loan losses. HSBC's 2007 annual report (pages 350-351) explains this process as follows:

Impairment is assessed on a collective basis in two circumstances:

- to cover losses which have been incurred but have not yet been identified on loans subject to individual assessment; and
- for homogeneous groups of loans that are not considered individually significant.

For loan portfolios that are likely to have been impaired as of the balance-sheet date (but for which the specific loans that will ultimately default is unknown), the reporting entity should record an estimated loss for the portfolio as a whole based on underlying credit characteristics (such as credit or debt ratings, recent default rates and related trends, and growth in past-due accounts within the





portfolio). For portfolios of homogeneous loans that individually appear to have little risk of impairment, a statistical analysis is used to estimate the amount of loss likely to be incurred on the entire portfolio.³

While the IFRS approach is arguably somewhat less subjective and arguably more consistent with the handling of impairments for other assets, it cannot be ignored that IFRS is likely to understate the eventual losses on a company's loan portfolio as there may be a comparatively lower provision for recently underwritten loans that are not at risk of default (but may become impaired in the future). Given the shaky state of world credit markets and the likely downturn in the world economy, this shortcoming could lead to a significant divergence between U.S. GAAP and IFRS.

OUR ASSESSMENT OF HSBC'S LOAN-IMPAIRMENT ALLOWANCE

With the differences between U.S. GAAP and IFRS in mind, we now assess whether the loan-impairment allowance that HSBC has is sufficient, in our view, for the probable losses that the bank will ultimately incur on its portfolio. Fundamentally, we are adopting the U.S. GAAP perspective of how the allowance should be determined and as such are not attempting to judge whether the allowance is appropriate under IFRS. Our reasons for making this adjustment are twofold. First, the eventual losses on all loans, not just currently impaired loans, are economically relevant. Just because HSBC uses IFRS does not change its economic reality so there is no reason to analyze the company any differently from a bank using U.S. GAAP. Second, viewing loans on this basis is consistent with how we have analyzed banks in our past reports. And the estimation of HSBC's results on a GAAP basis facilitates the use of our proprietary bank-valuation model.

As an overview, HSBC reported a loan-impairment allowance at 6/30/08 of \$20.58 billion, up from \$19.21 billion at 12/31/07 and \$14.32 billion at 6/30/07. The sequential growth of 7.1% is remarkably low in the current credit environment. Indeed, as a percentage of total loans, the allowance has remained flat at just 1.9%. As a percentage of non-performing customer loans,⁴ the allowance is just 0.95. Although up from 0.94 at the end of 2007 and 0.86 a year ago, the allowance relative to non-performing loans is (1) substantially lower than we are comfortable with in the current environment and (2) significantly below that of peers who report under U.S. GAAP.

In past reports on banks, we have expressed the view that loan-loss allowances should be twice the level of annual charge-offs to ensure that reserves are reasonably likely to be adequate. HSBC has historically fallen short of our standard. On a "look-back" basis, at the end of 2007, the ratio of the allowance to

³ While the method of recording provisions under IFRS (outlined above) is conceptually a reactive approach, depending on how the group method is actually implemented, it could produce results that are close to the amounts recorded under U.S. GAAP. It should be noted that 97% of all loan-impairment charges reported by HSBC in H1 2008 were collectively assessed.

⁴ We add 90-day past due but not impaired loans to impaired loans. This is comparable to the methodology used in our *Issue Commentary* on U.S. banks. We exclude non-performing loans to other banks.





annualized charge-offs (based on H2 2007 charge-offs) was 1.57 while the midpoint for the full-year 2007 was 1.25. However, a more ideal approach is to use a “look-ahead” basis (the allowance should correspond to expected future charge-offs, not past charge-offs). On that basis, it appears that HSBC has also fallen short. Using the benefit of hindsight for a moment (something we will rectify later), we note that the allowance represented only 1.15 years of charge-offs at 12/31/07 (based on the annualized value of actual charge-offs in H1 2008) and 1.17 years at 6/30/07 (based on actual charge-offs in the subsequent six-month period).

So how does the allowance fare at 6/30/08? Based on “look-back” charge-offs, the allowance can cover just 1.24 years. That is, unless charge-offs remain flat (which is an unlikely scenario), HSBC will likely have to accrue significant losses in upcoming periods. On a “look-forward” basis, the severity of the problem becomes even clearer. We obviously don’t know what level of charge-offs will actually occur in H2 2008 and beyond. But even if the average trend over the last two years were to be maintained, charge-offs would grow 19.4% from H1 to H2. Based on this relatively favorable assumption, the ratio of the allowance to annualized charge-offs projected for H2 2008 is only 1.04 years—barely half the level we think is necessary. However, given that the half-year growth rate was 36.1% in H1 2008, the actual result could be significantly worse.⁵

If we apply our two-year rule using projected charge-offs for the next half year, we would expect an allowance of \$39.6 billion. Since the current allowance is only \$20.6 billion, that implies a shortfall of \$19.0 billion pretax and \$15.4 billion after tax (assuming a marginal rate of 18.9% as in H1 2008). The after-tax figure represents our estimate of the amount by which recent earnings and book value have been overstated due to insufficient loan-loss reserves (i.e., the deficiency relative to the likely decline in economic value of HSBC’s loan portfolio) reported in prior periods.

DOES A GLOBALLY-DIVERSIFIED PORTFOLIO EXPLAIN HSBC’S RELATIVELY LOWER LEVEL OF LOAN-LOSS RESERVES? AND IF SO, IS THIS A SUSTAINABLE TREND?

An argument for HSBC’s relatively low allowance is that the problems in the U.S. market (roughly 1/5 of the firm) are more severe than elsewhere. However, this view is shortsighted for two reasons. First, our estimates are based on actual charge-offs reported by HSBC. Thus, our analysis and related conclusions reflect the actual composition of HSBC’s loan portfolio.

Second, the trend in non-performing loans suggests that the hypothesized

⁵ For perspective on the likely growth rate in H2 2008, we have data for Q3 from HSBC’s U.S. subs, which are required to file 10Qs. HSBC USA, with 7.1% of the firm’s assets, would see charge-offs grow by 13.4% from H1 to H2 based on Q3 charge-off levels. HSBC Finance, with 5.9% of the firm’s assets, would see charge-offs grow by 3.8% from H1 to H2 based on Q3 charge-off levels. This calculation assumes Q4 levels exactly match Q3 levels. If Q4 levels are higher, the semiannual growth rate will also be higher. Of course, the U.S. hit its credit-quality crisis early. We’d expect to see higher growth rates in charge-offs for other countries.

⁶ The company’s interim report does not break out charge-offs by region.





inadequacy of HSBC's loan-loss reserves is due to relatively lower accruals on non-U.S. loans. The bulk of HSBC's allowance is coming from the U.S. North America region (predominantly HSBC USA and HSBC Finance, both U.S. subsidiaries) accounted for 64.1% of the total allowance but only 46.8% of impaired loans.⁶ For other regions, the allowance to impaired loans ratio is much lower. While it could reflect superior historical collection experience for non-U.S. loans, in light of the prospect of a deep worldwide contraction, we are concerned that the more likely explanation is a delayed recognition of losses that are likely to occur in other regions. After all, the surge in charge-offs seen during 2008 has been much greater than implied by historical collection experience on U.S. loans before H2 2007. In this regard, the U.S. seems to be the leading edge in the developing economic crisis. As it has gone, other countries may soon go as well.

**Loan-Impairment Allowance
(\$ in millions)**

	6M Ended 06/30/08	6M Ended 12/31/07	6M Ended 06/30/07
Beginning balance	\$19,212	\$14,330	\$13,585
Provision	\$9,957	\$10,849	\$6,328
Charge-offs (net of recoveries)	(\$8,327)	(\$6,120)	(\$5,719)
Exchange rate and other	(\$255)	\$153	\$136
Ending balance	\$20,587	\$19,212	\$14,330
Total gross loans	\$1,069,787	\$1,000,760	\$942,431
Impaired loans	\$19,029	\$18,304	\$14,555
Non-performing loans	\$21,599	\$20,434	\$16,586
Allowance/Total loans	1.92%	1.91%	1.52%
Allowance/Non-performing loans	0.95	0.94	0.86
Allowance/Charge-offs (annualized)	1.24	1.57	1.25

**Big Losses on Securities but Only
Gains Show on the Income Statement**

LOWER-QUALITY SECURITIES DRAG DOWN INVESTMENT PORTFOLIO

One of the main worries we have about financial companies these days is the extent of toxic securities on the balance sheet. In this regard, we are generally worried about asset-backed securities, especially CDOs and those invested in lower-quality mortgages (subprime and Alt-A, or foreign equivalents, particularly of recent vintage and/or in subordinated tranches).

As of June 30, HSBC held \$108.4 billion of ABSs,⁷ with \$72.8 billion designated as available for sale (AFS) and \$2.6 billion as held to maturity (HTM). Any losses on AFS and HTM would only be recorded upon a sale of the underlying asset or the recognition of a permanent impairment. The remaining \$33.0 billion of ABS are fair valued for income statement purposes.

⁷ This amount includes direct lending included in trading account assets of \$4.2 billion. It should be noted that 85% of these loans are subprime.





As of the most recent balance-sheet date, the total amount of subprime exposure within MBSs and CDOs totaled \$9.3 billion.⁸ The company also carried another \$12.2 billion in exposure to U.S. Alt-A MBSs. These are the carrying amounts. The historical cost, particularly for subprime related assets, is generally much higher.

Focusing on subprime-based securities, for the U.S., the company carries \$9.4 billion in principal value, of which 65% are rated AA or AAA (HSBC does not separate these). Given the well-documented ratings inflation on these types of securities, even these relatively “higher-rated” securities are unlikely to return cash flows that are consistent with initial expectations. And anything of lower grade, especially within the CDO portfolio, is unlikely to generate any significant cash flow. The ratings on Alt-A securities also appear to be optimistically biased and are unlikely to be representative of actual cash flows realized on related securities.

Another major concern moving forward is the non-conforming U.K. portfolio of \$2.9 billion in MBSs. Given the collapse of the U.K. economy (-2% annualized growth in Q3 after growing at 3% in 2007), we believe these loans are also likely to see increasing charge-offs in coming periods.

One final reason for concern with regard to HSBC’s subprime, Alt-A, and equivalent U.K. portfolios is the vintages. Only 30.3% of subprime and 14.8% of Alt-A mortgages underlying HSBC’s portfolio were written before 2006. These older vintages have generally performed better; it is the more recent ones that have proven to be highly toxic, and they form the bulk (\$21.5 billion) of HSBC’s low-grade mortgage-backed securities.

ONLY A SMALL PORTION OF FAIR-VALUE LOSSES HAVE FLOWED THROUGH THE INCOME STATEMENT ... SO FAR

Although the company has incurred substantial losses, to date only a relatively small portion have flowed through income. In H1 2008, HSBC recorded a total net loss on U.S. subprime ABS of \$1.7 billion.⁹ This figure is net of gains received on purchased CDS associated with the securities (these CDSs cover 12.4% of the subprime portfolio). Put in perspective, the losses recognized to date amount to just 20.7% of net principal exposure on subprime ABSs. Thus, if the amount of losses reported by the firm’s U.S. peers is indicative of the true level of risk faced, then HSBC may be likely to incur additional charges on U.S. subprime-based assets.

U.S. Alt-A experienced even larger losses than subprime, with a total of \$3.7 billion in fair-value declines reported during H1 2008 on a portfolio with principal value of \$17.5 billion. In percentage terms, 20.9% of the portfolio has been impaired. Likewise, only \$102 million in losses were recorded in connection

⁸ This amount includes non-conforming U.K. residential mortgage-based securities.

⁹ This and the following figures exclude direct lending ABSs, which had \$242 million in losses during the period.





with the non-conforming U.K. portfolio in H1. None of the portfolio is hedged and, if the pattern of these mortgages follows that of its U.S. cousins (subprime), a substantial percentage of the portfolio's value may be lost.

From an overall perspective, fair-value losses incurred on the AFS portfolio totaled \$8.3 billion in H1 2008 alone. Yet the company's income statement reflected a net gain of \$516 million, consisting of \$0.9 billion of gains realized on the income statement, less impairment losses of \$0.4 billion. Thus, the difference between economic losses implied by management's fair-value marks and the net gain reported in income was \$8.8 billion. To make matters worse, a similar, but smaller difference of \$211 million occurred on the firm's cash-flow hedges. Thus, overall the company recorded \$9.0 billion in losses during H1, but none of those losses are reflected on the income statement.¹⁰ To put that in perspective, unrealized losses if realized would have erased 88.0% of pre-tax profits in H1 2008 and 44.4% of pre-tax profits in the last 12 months.

Net of gains accumulated in prior years, as of 06/30/08 the AFS portfolio had a total unrealized loss (net of tax) of \$7.3 billion. A year prior, HSBC reported an unrealized gain of \$2.4 billion.¹¹ We've seen the same pattern at other financial companies, most notably Prudential (see our *Detailed Report* on 07/01/2008). The ensuing fallout as the market eventually comes to terms with the implication of those unrealized losses is not pretty. At some point those losses are very likely to flow onto the income statement and replace the gains that have recently boosted as-reported profits above economic income.

(See table, Securities Portfolio, next page)

¹⁰ The same thing occurred in H2 2007 to a lesser extent as the AFS portfolio lost \$406 million but HSBC claimed a gain in income of \$957 million. Adding in cash-flow hedges, the mismatch between economic losses and reported gains was \$2.4 billion in H2 2007 and \$11.7 billion for the last 12 months.

¹¹ There are also \$1.1 billion in unrealized cash-flow hedge losses in equity.





Securities Portfolio
(\$ in millions)

	6M Ended 06/30/08	6M Ended 12/31/07
Total asset-backed securities	\$108,441	\$126,225
AFS asset-backed securities	\$72,823	\$84,586
Sub-prime (incl. foreign equivalent)	\$12,851	\$18,744
Losses realized in income	\$1,052	NA
Unrealized losses	\$1,032	NA
U.S. Alt-A	\$12,565	\$18,221
Losses realized in income	\$432	NA
Unrealized losses	\$3,243	NA
AFS equity reserve		
Beginning balance gain (loss)	\$850	\$2,403
Unrealized losses	(\$8,292)	(\$529)
Realized gains taken to income (net of impairments)	(\$516)	(\$938)
Taxes on unrealized gains and other	\$666	(\$86)
Ending balance gain (loss)	(\$7,292)	\$850

**Several One-time Boosts to Earnings
Raise Questions about the True
Income of the Business**

We've documented two ways in which we believe the true earnings of the business have not been fully reflected in the income statement: under-provisioning for loan losses and storing unrealized securities losses in equity reserves. Together, they suggest that recently reported earnings are not reflective of economic reality. But there are several other accounting quirks that collectively have served to boost the firm's reported profit over the last three semiannual periods (1 1/2 years). Many of these boosts can be expected to reverse in the near future with adverse consequences. The income boosts discussed in this section include:

- Non-recognition of goodwill impairments claimed by U.S. subsidiaries (\$5.1 billion).
- Recorded gain on "dilution of interest in associates" (\$1.1 billion).
- Recorded gain on own debt (\$3.2 billion after tax).
- Reduced tax reserves (\$1.2 billion).
- Benefitted from favorable exchange rate movements (\$1.5 billion).

U.S. SUBS TAKE GOODWILL CHARGES, BUT PARENT NIXES THEM

The U.S. subsidiaries of HSBC have been hit especially hard in the past two years. These firms had been acquired by HSBC at substantial premiums, giving rise to goodwill. Since the firms have struggled badly, it is proper under both U.S. GAAP and IFRS to impair their goodwill and take an income-statement hit.¹² And indeed, HSBC USA and HSBC Finance took goodwill write-downs of \$4.0 billion

¹² Under IFRS, impairment occurs when the net projected discounted cash flows of the business falls below its carrying value.





for U.S. GAAP and \$5.6 billion for IFRS in 2007.

The odd thing is that this goodwill impairment never hit the parent's income statement. It would seem the parent conducted its own impairment test using different discounted cash-flow assumptions (or segment groupings¹³) and concluded that consolidated goodwill was not impaired. Regardless of the reason, this decision by HSBC Holdings added \$5.6 billion to consolidated net income in 2007 (there is no tax offset).

The problem for HSBC Holding shareholders is that 2008 YTD performance (and, in our view, its expected performance) makes impairment very likely to occur anyway, but at a later date. Indeed in H1 2008, HSBC Holdings took a belated goodwill impairment of \$0.5 billion.¹⁴ But, there is still at least \$5.1 billion of write-downs that may be required, and that ignores the probability of further deterioration in other goodwill this year. We expect to see HSBC Holdings take hefty goodwill write-downs in H2, when testing is typically done.

SINCE WHEN IS DILUTION A GOOD THING? HSBC'S 2007 NET INCOME REFLECTS \$1.1 BILLION IN "GAINS" FROM DILUTION OF CERTAIN ECONOMIC INTERESTS

While the parent company's "de-recognition" of goodwill impairments is certainly odd, the next issue is even more unusual in our experience. According to the 2007 *Annual Report* (pages 362-363), management asserts that:

During 2007, certain HSBC associates issued new shares. HSBC did not subscribe for any of the shares issued under these offers and, as a result, its interests in the associates' equity decreased. The assets of each associate substantially increased as a result of the new share issues and, as a consequence, the transactions resulted in an increase in HSBC's share of the associates' underlying net assets, notwithstanding the reduction in the Group's proportionate ownership interests. This increase represents gains from dilution of the Group's interests in the associates, and is presented in the income statement.

What this means is that by raising capital through non-consolidated subsidiaries accounted for under the equity method, the company recorded a \$1.1 billion "gain" which was reported in income. However, this entry appears to have no conceivable economic substance behind it. And as a bonus, the "gain" has no income-tax consequences, which allows it to flow through to the bottom line without any offsetting tax accrual.¹⁵

¹³ One scenario under which this could occur is if two different reporting entities make up an overall "segment" within a parent company. Assume that Parent Company has two subsidiaries: A and B. Cash-flow projections for Sub A's prior acquisitions increased during the period. But this increase cannot be recognized as an increase in goodwill under U.S. GAAP or IFRS. Also assume that cash-flow projections for Sub B's prior acquisitions have declined, triggering a goodwill impairment on its financial statements. If the projected cash-flow increase attributable to Sub A's prior acquisitions equals or exceeds the projected cash-flow decrease for Sub B's prior acquisitions, then segment-level goodwill would be unaffected. Other things equal, consolidated goodwill would also be unaffected.

¹⁴ This write-down was a result of a restructuring of Personal Financial Services, North America.

¹⁵ Under IFRS and U.S. GAAP, the tax effects are considered a "permanent difference," so the full amount goes into net income.





From a purely mechanical (i.e., bookkeeping) perspective, the reason that a gain was reported is that the shares sold by the subsidiary had a market price that exceeded their underlying book value per share before the sale. As a result, book value per share increased as a result of the cash received on the sale of shares. To see how this occurred, consider the following hypothetical example:

Assume that HSBC owns 20% of XYZ, or 20,000 shares. Further assume that XYZ has book value of \$1 million. With 100,000 shares outstanding, XYZ's book value per share is \$10. Therefore, HSBC's position in XYZ is carried at 20% of book value, or \$200,000.

Now assume that XYZ sells 10,000 new shares at a market price of \$20 per share. Following the share issuance, XYZ has 110,000 shares outstanding and a book value of \$1.2 million. As a consequence, HSBC's position in XYZ is now \$218,182 (20,000 shares / 110,000 shares * the new book value of \$1.2 million). Under IFRS, HSBC records a gain of \$18,182 as a result of accepting the dilution.

While consistent with IFRS, we view the gains with a healthy dose of skepticism. Even in a best-case scenario, the gain is not real in any relevant economic sense and it is certainly not a sustainable source of income for the company. Moreover, the dilutive share offerings may actually have had a negative impact on the subsidiary's market value. If so, the market value of HSBC's interest may also have been negatively affected by the dilution.

GAINS ON CREDIT DOWNGRADES: INCOME GOES UP, BUT SHAREHOLDERS STILL LOSE

While we like fair-value accounting in principle, the operationalization of the concept by regulators sometimes leaves much to be desired. In this regard, one of the more unusual aspects of current fair-value accounting practice is its application to liabilities. When a company sees the credit spread on its own debt widen, due presumably to deterioration in the firm's economic condition, the market value of that debt declines. The hapless firm then records a smaller liability, with the offset recorded as a gain. In other words, if management takes excessive risk or makes poor decisions—leading to a credit downgrade—shareholders suffer. But, under IFRS (and U.S. GAAP), the firm's poor performance is rewarded in the form of a fair-value gain.

The problem with this treatment is that, unless the firm has adequate liquidity to buy back its debt at the now lower price (something that would seem unlikely in the context of a recent downgrade), there are no economic benefits accruing to the firm. Indeed, if anything, the reduced debt ratings should raise the cost of capital and could lead to reduced business if the firm's credit ratings are at all related to the price charged for certain financial services (such as annuities or insurance).

We've seen the absurd implication of this several times before. See, for example, our *Detailed Report* of 08/06/2008 on Assured Guarantee Limited (AGO), which



recorded such a gain in Q2 2008 of \$475 million. The very same effects were then passed through via equity-method entries to minority shareholder ACE Limited (ACE), as reported in our *Report* dated 11/10/08.

HSBC's credit certainly has not fared as poorly as AGO's, but it benefitted from the same bizarre accounting treatment, receiving a \$3.1 billion gain from the change in credit spread included in net income in 2007 and \$0.8 billion in H1 2008. To add to the irony, there are now \$2.4 billion of cumulative prior gains related to credit downgrades that will ultimately reverse as losses in the future, if HSBC's ratings improve gradually over time as the bond discounts amortize approaching the dates of maturity (assuming no default occurs).

REVERSAL OF TAX RESERVES HAS MATERIAL IMPACT ON NET INCOME

Of course, tax reserves are supposed to be set up for anticipated future tax costs, but like any other reserve they can be overfunded and reversed later if an earnings boost is needed. As an outsider, we cannot determine whether HSBC has deliberately reversed any of its tax reserves. However, recent periods have seen serendipitous reductions in deferred tax expense that are clearly unsustainable. The most notable reversal was reported in H2 2007 when the company's effective tax rate (ETR) fell to just 11.1%.¹⁶ Needless to say, that had a material impact on the bottom line.

To assess how much of the company's tax savings are due to reserve changes, we reviewed the ETR adjustment table and singled out three lines that seem particularly judgment-based or otherwise unsustainable:

- adjustments in respect of prior-period liabilities,
- effect of previously unrecognized temporary differences, and
- release of deferred tax consequent to restructuring of Group's interests.

We estimate that the combined effect of these line items was a benefit to earnings of \$78 million in H1 2008, \$790 million in H2 2007, and \$363 million in H1 2007. Of note, the low amount in H1 2008 may suggest that this source of income is now exhausted. If so, H2 2008 may be up against even greater headwinds than currently anticipated.

WHEN THE DOLLAR SINKS, PROFITS SOAR

Despite the fact that only one fifth of the company operates in the U.S., HSBC has chosen to employ the U.S. dollar as its reporting currency. To the extent that a firm operates outside its reporting-currency country, its numbers will fluctuate up and down in cadence with the reporting currency's value. This can lead to misleading results, especially since the dollar had fallen precipitously before recently showing some signs of resurgence. See our *Issue Commentary* of 10/23/2008

¹⁶ For comparison, the corporate tax rate in the U.K., the firm's primary location, was 30% in 2007 (it is 28% now).



for the challenges facing several companies as the dollar's course reverses.

HSBC's earnings are particularly vulnerable to the effects of exchange rates as the majority of its activities are outside the U.S. and all of its earnings of late have come from the rest of the world (the U.S. subs have been reporting losses). Exchange-rate benefits have partially covered for earnings softening at the company. But since the dollar has turned around since H1 and appreciated substantially, it can be anticipated that H2 will likely endure an earnings penalty from foreign exchange.

To assess the magnitude of the effect, we need a benchmark. The dollar fell against most currencies steadily throughout 2006 and 2007, and then stayed roughly flat in the first half of 2008. Since then it has skyrocketed, returning roughly to where it was at the start of 2006. Because of this pattern, we can set the benchmark at the average exchange-rate level in H2 2006 to estimate the earnings benefit in the most recent three semiannual periods. We will also use the current exchange rate to predict the likely impact of foreign exchange on H2 2008 profits.¹⁷

Since HSBC is engaged in business around the world, we construct a basket of currencies, weighted by 2007 profits in each nation. We only bother with the largest nations by profitability and assume that the smaller countries have exchange rates versus the \$U.S. that are comparable. Our weighted basket of currencies includes the Hong Kong dollar at 35.5%, the British pound at 28.0%, the Euro at 13.6%, the Chinese yuan at 11.4%, the Mexican peso at 4.7%, the Brazilian real at 4.2%, and the Indian rupee at 2.6%.

Using the weighted basket, we estimate exchange rates to be 1.036 in H1 2007, 1.076 in H2 2007, 1.080 in H1 2008, and 0.972 in H2 2008 (benchmark is H2 2006 = 1). Applying this to earnings reported by HSBC, we estimate that the steady decline in the dollar lifted earnings by \$383 million in H1 2007, \$582 million in H2 2007, and \$572 million in H1 2008. However, the surge in the dollar since H1 means that annualized earnings are likely to fall by \$2.4 billion as a result of exchange-rate effects.¹⁸ In light of all the other problems HSBC will have in the coming year, this additional headwind on the income statement will certainly not be welcome.

(See table, **Earnings Boosts**, next page)

¹⁷ In constructing an average rate for the half-year period, we use actual exchange rates to date and assume constant exchange rates from here on. This assumes, conservatively, that the dollar rally won't continue.

¹⁸ This is based on assuming that native-country earnings in H2 2008 match H2 2007, and H1 2009 matches H1 2008. This is an estimate of how much next-12-month earnings would be less than the last 12 months due solely to exchange-rate differences.





Earnings boosts
(\$ in millions)

	6M Ended 06/30/08	6M Ended 12/31/07	6M Ended 06/30/07
Profit attributable to shareholders	7,722	8,238	10,895
Difference between goodwill impairment at parent and sub	(527)	5,649	--
Gain on dilution of interest in associates	--	16	1,076
Gain on credit deterioration of own debt (net of tax)	824	2,883	172
Reduction of tax reserves			
Adjustments in respect of prior period liabilities	(2)	157	152
Effect of previously unrecognized temporary differences	80	274	211
Release of deferred tax consequent on restructuring of Group's interests	--	359	--
Total	78	790	363
Exchange rate movements	572	582	383
All boosts combined	947	9,920	1,994
As a percentage of profit:			
Difference between goodwill impairment at parent and sub	(6.8%)	68.6%	--
Gain on dilution of interest in associates	--	0.2%	9.9%
Gain on credit deterioration of own debt (net of tax)	10.7%	35.0%	1.6%
Reduction of tax reserves	1.0%	9.6%	3.3%
Exchange rate movements	7.4%	7.1%	3.5%
All boosts combined	12.3%	120.4%	18.3%

Sustainable Earnings, Economic Capital, and Valuation of the Firm

In our *Issue Commentary* of 10/20/2008, we outlined a statistical model for valuing banks in the U.S. The model uses three variables to estimate intrinsic value: adjusted net asset value (which is our proxy for economic capital), sustainable earnings, and one-year-ahead expected earnings growth. We used a standard method for calculating these variables and estimated the model using a broad sample of banks. In this section, we will apply the same basic model, with certain adjustments to reflect GAAP differences, to determine whether HSBC is likely to be over or undervalued. Since we have examined the firm more closely than the large group of banks used in our model, we also use somewhat more customized measures of net asset value and sustainable earnings. Given our regression approach, these adjustments should average out across all firms, leading to relatively minimal risk of bias due in the context of our estimated value for HSBC.

UNSUSTAINABLE ITEMS AND LOWER-QUALITY ASSETS REPRESENT 58% OF AS-REPORTED BOOK VALUE

Our concept of net asset value is what the balance sheet would look like under our ideal set of accounting rules and judgments that we feel would provide a better picture of economic reality. We are not suggesting that under the rules of IFRS, this is what *should* be presented. Rather, we are trying to determine the true economic capital level of the company. We start with book value of shareholders' equity as reported (\$126.8 billion at 06/30/2008), and eliminate lower-quality





assets and unsustainable accruals that have contributed to retained earnings or other shareholders' equity accounts. For HSBC we made the following adjustments:

- Subtract the additional loan-impairment allowance (net of tax) we believe to be appropriate (\$15.4 billion as discussed earlier).
- Subtract goodwill and intangibles (\$40.8 billion), consistent with the adjustments we have made to banks reporting under U.S. GAAP.
- Subtract the benefits from recent gains on dilution of interests in associates and cumulative credit risk gain on own debt (\$3.0 billion as discussed earlier).
- Subtract unsustainable tax accruals (\$1.2 billion as discussed earlier).
- Subtract foreign-currency translation-adjustment reserve since, as noted earlier, exchange rates moves since June 30 have undone more than all of the gains in recent years (\$13.2 billion).

Our estimate of HSBC's economic capital of \$53.2 billion, or just 42% of reported book value. That estimated capital level is just 2.15% of assets (with the same adjustments above applied to assets as well).

The materiality of the adjustments made speaks to the magnitude of our concerns. Specifically, the reduction in as-reported net asset value has significant valuation implications. It also has very important implications with respect to the adequacy of the bank's liquidity and capital. It would not take much of an adverse shock to raise solvency questions at HSBC.

SUSTAINABLE EARNINGS

The next step is to estimate sustainable earnings. By that, we mean what we would expect earnings to be in the long run, assuming no one-time earnings effects and a steady economy. It is definitely not what we expect earnings to be in the coming year, as we anticipate both declining economic conditions and the need for HSBC to reverse some prior under- or over-accruals (loan impairments, unrealized losses, realized gains of own debt) as noted in earlier parts of this report. Thus, our expectation for the year-ahead earnings is much lower than our estimate of sustainable earnings.

We derive our sustainable earnings estimate by starting with profit attributable to common shareholders for the last 12 months of \$16.0 billion. We then make the following adjustments:

- Substitute sustainable loan-impairment charge for actual. Following the methodology outlined in our 10/20/2008 *Issue Commentary* on bank valuation, a sustainable loan impairment charge is one that reflects an appropriate allowance (\$39.6 billion) times the ratio of new loans to total loans (13.5%)





over the past year. The sustainable impairment of \$5.3 billion per year is less than the actual impairment (\$21.0 billion), or \$15.7 billion. After tax and minority interest, the adjustment is an increase of \$11.7 billion. In this context, it is worth noting that we subtracted an additional \$15.4 billion in computing adjusted net assets—on top of the so-called “excess provisions” taken by the bank over the past year. This reflects the fact that the current impairment level is reflective of “catch-up” provisions required as an offset to unsustainably low accruals reported in prior periods. However, the purpose of the adjustment to sustainable earnings is to cancel out the episodically high provisions needed in the past year.¹⁹

- Eliminate all goodwill and intangibles charges, which total \$1.1 billion, net of minority interest.
- Eliminate all realized gains on AFS securities and cash-flow hedges and allocate a portion of unrealized losses to reflect the need to gradually realize those losses over time. We assume a turnover of the unrealized losses of 25% per year. Net of tax and minority interest, this adjustment is a decrease in income of \$3.8 billion.²⁰
- Eliminate the gains from dilution of interests in associates and own debt, and benefit of tax reserve reductions, totaling \$4.0 billion.
- Reduce earnings to reflect current exchange rates.²¹ That reduces income by \$3.7 billion.

The net result (accounting for rounding error) is \$17.3 billion in estimated sustainable earnings. That might seem high, but recall it is based on the assumption of a good economy, not the economy we currently have. In addition, the prospects of higher future earnings must be weighed against the risks associated with solvency, the potential for equity dilution due to the decrease in capital, and adverse debt ratings changes that could drive up the cost of capital. Our proxy for these issues is the adjusted net assets value, which is also a key explanatory variable in our bank valuation model.

MODEL POINTS TO POTENTIALLY SIGNIFICANT OVERVALUATION

Applying our bank valuation model, we estimate a market value for HSBA of £61.3 billion, £5.06. per share.²² Thus, with shares currently trading at £7.06,²³ the stock appears over-valued by 29% per our model.

Given that the model was estimated for the U.S., we acknowledge that there may

¹⁹ This adjustment is also consistent with the results in our *Issue Commentary*, where most banks received a boost to sustainable earnings from this adjustment.

²⁰ For purposes of applying the valuation model, this adjustment is excluded because it is likely that many of the banks used in the estimation of the model would have similar negative adjustments if we had been able to calculate a similar amount for them.

²¹ Compared to the average exchange rate over the last two semi-annual periods, the dollar is now 21.6% higher, based on 11/11/2008 rates.

²² The model has been re-estimated using closing stock prices as of 11/17/2008.

²³ 11/17/ 2008 close.





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be some limitations to the generalizability of our results. On the other hand, we believe that the fundamental conditions in financial markets across the developed world are substantially similar. It should be noted that since publishing our *Issue Commentary* recommending five regional U.S. bank stocks based on this model, those stocks are down only 7.8% on average while the regional banking ETF (NYSE: IAT) is down 14.5% over the same period. Earlier versions of this basic approach to identifying high-risk banks (albeit without the final valuation estimate we now provide) also proved to be especially timely, with the first indications of trouble (beyond merely subprime loans) triggering warnings for Washington Mutual (WM), Wachovia (WB), Citibank (C), and a host of other troubled banks more than a year ago.

Conclusion

We have identified several concerns with HSBC Holdings: an inadequate loan-impairment allowance (resulting in a potential overstatement of the loan portfolio relative to economic value), an overhang of unrealized losses on low-quality mortgage-based securities, unsustainable gains on the sale of certain securities reported in income, several other one-time boosts to income in recent periods, and a benefit from exchange rates that will reverse in the second half of this year. We have determined that, after making what we feel are appropriate adjustments, shareholders' equity is only \$53.2 billion versus \$2.55 trillion in assets, shareholder equity reported on the balance sheet of \$126.8 billion, and market value of \$129.0 billion. That level of capital is very worrisome given the continuing deterioration in the world economy. After applying the same statistical valuation model we've used in prior bank reports, we conclude that HSBA appears over-valued by 29%. For all of these reasons, we are initiating coverage of HSBC Holdings with a grade of F.





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