Article Title: ARCHIVE | Criteria | Governments | Sovereigns: Introduction Of Sovereign Recovery Ratings Data: (EDITOR'S NOTE: — This criteria article is no longer current.) Over the past few months, Standard & Poor's Ratings Services has published a number of articles on its recovery rating initiatives to extend recovery ratings to debt instruments by issuers previously without recovery ratings and that will incorporate recovery expectations in specific issue ratings. On Oct. 4, 2006, we published "Request for Comment: Expanding Recovery Rating Coverage And Enhancing Issue Ratings," and on Dec. 6, 2006, "Request for Comment: Introduction Of Sovereign Recovery Ratings." We would like to thank the many market participants who provided insightful comments on our proposals. The comments received, and our conclusions, were discussed in the articles titled "Recovery Analytics Update: Enhanced Recovery Scale And Issue Ratings Framework," published on RatingsDirect on May 30, 2007, and "Recovery Analytics Update: Expanding Recovery Rating Coverage And Enhancing Issue Ratings," published on April 10, 2007. According to our enhanced recovery and issue rating framework, issue ratings for rated debt will be based on a blend of default and recovery prospects. The expansion of recovery ratings to sovereign issues follows the market's broad acceptance of our existing base of more than 2,000 corporate recovery ratings. It also reflects the market's increasing focus on post-default recovery prospects, and the demand for greater clarity and specificity with respect to recovery prospects on different debt instruments of all types of issuers worldwide. By providing a default indicator, a recovery indicator, and a blended issue rating, our intent is to enhance ratings transparency. In addition, we provide market participants the opportunity to deconstruct the risk of default and loss as components of the rating. The first phase of sovereign recovery rating coverage will apply to 25 issuers with speculative-grade ratings that in most cases have a substantial amount of debt outstanding. We shall assign recovery ratings to the debt of further speculative-grade sovereigns that currently have outstanding foreign currency issues in the course of 2007. For other speculative-grade sovereigns, Standard & Poor's will assign recovery ratings as and when they issue commercial debt. The following text presents Standard & Poor's approach specifically for recovery ratings for sovereign foreign currency unsecured commercial debt obligations. Summary Standard & Poor's sovereign foreign currency recovery ratings reflect its opinion on the extent to which a sovereign government will be able and willing to repay nonofficial foreign currency debtholders post-default. Initially, sovereign recovery ratings will not be assigned to investment-grade issuers. Moreover, these ratings will not be assigned to secured debt or debt guaranteed by third parties, nor will they differentiate between different types of commercial creditors, or on the basis of other features such as different maturities. Therefore, our analytical approach will focus on the issuer rather than on specific debt instruments, with the same recovery rating typically assigned to all of the sovereign's rated senior unsecured foreign currency commercial debt. For the rare cases of secured debt issued by sovereigns, Standard & Poor's will assess on a case-by-case basis whether or not the recovery rating is the same as for senior unsecured debt. In essence, the main features of the sovereign recovery ratings approach are that: We shall apply the outlined sovereign recovery analytics to commercial senior unsecured foreign currency debt. At this stage, we plan to assign recovery ratings to speculative-grade issuers only. For sovereign debt, we express the expected recovery rate in terms of net present value (NPV). Our approach is equivalent to discounting both the remaining scheduled payments under the original debt instrument and the recovery given default at a post-restructuring discount rate. Although the historical measure of recovery rates refers to debt tendered in the rescheduling, the assumption looking forward is that participation in restructuring approaches 100%. The anticipated recovery rate will be expressed on Standard & Poor's global recovery rating scale (see table 1). The analysis will begin with the identification of likely sovereign default or restructuring scenarios. These set the relevant parameters for the subsequent recovery analysis, as they envisage the economic, fiscal, and political conditions around default. The fundamental recovery analytics will consist of estimating the issuer's payment ability and recovery incentives under the default or restructuring scenario. They conclude by taking into account the impact of official creditors (loans by the IMF or the World Bank, for example), including potential assistance (see table 2). Issue ratings for rated debt will be based on a blend of default and recovery prospects. The issue ratings will thereby be determined relative to the issuer credit rating, as presented in table 1. Key differences between assessing a sovereign's probability of default in the first instance, and estimating recovery in the event of default, will be related to crisis dynamics and

knock-on effects (such as currency depreciation, economic contraction, and political instability) surrounding the default or restructuring scenario. These may lead to conclusions on debt service payment ability and incentives in the event of default that are distinct from those in a predefault situation. In general, the distinction will grow as the default rating approaches investment grade. As noted in our Recovery Analytics Update of May 30, 2007, we have made adjustments to the proposed recovery ranges and related issue-level rating criteria after considering market comments. The revised recovery rating scale will now be calibrated as presented in table 1. Table 1 Standard & Poor's Global Sovereign Recovery Rating Scale FOR SPECULATIVE-GRADE ISSUERS RECOVERY RATING RECOVERY EXPECTATIONS RECOVERY RANGE ISSUE RATING* 1+ Highest expectation, full recovery 100% +3 notches 1 Very high recovery 90%-100% +2 notches 2 Substantial recovery 70%-90% +1 notch 3 Meaningful recovery 50%-70% 0 notches 4 Average recovery 30%-50% 0 notches 5 Modest recovery 10%-30% -1 notch 6 Negligible recovery 0%-10% -2 notches *Indicates "notching" relative to Standard & Poor's issuer credit rating. Table 2 Factors Involved In Sovereign Recovery Analysis* ABILITY TO MAKE PAYMENTS AFTER DEFAULT INCENTIVES TO MAKE PAYMENTS AFTER DEFAULT INFLUENCE OF OFFICIAL CREDITORS Comparison of stressed debt levels with debt capacities Default and restructuring history Proportion of official bilateral lending Impact of default crisis on financial system and economic activity in general Recent recovery precedents of other sovereign defaulters Proportion of existing IMF debt Potential for currency depreciation Importance of access to global goods and capital markets Extraordinary assistance Fiscal and external flexibility Exposure of domestic financial sector to sovereign debt Nature of financial inflows Proportion of resident to nonresident debtholders Potential for additional debt to be added to that of the sovereign Expected postdefault political situation Bargaining power *After the identification of the specific sovereign default scenario. Historical Sovereign Recovery Rates Standard & Poor's recovery ratings address the NPV of ultimate recovery, similar to the empirical sovereign recovery research data presented in table 3. Table 3 Sovereign Net Present Value Recovery Rates 1998-2005 BANK OF ENGLAND* STURZENEGGER/ZETTELMEYER¶ (%) AVERAGE RATE OF RECOVERY AVERAGE RATE OF RECOVERY RECOVERY RANGE Argentina§ 30 27** 18-36 Belize 70¶¶ N.A. N.A. Dominican Republic >95 N.A. N.A. Ecuador 60 73§§ 53-81 Grenada 60¶¶ N.A. N.A. Pakistan 65 69*** 68-71 Russia 50 37¶¶¶ 37 Russia 50 47§§§ 46-48 Ukraine 60 72§§ 65-78 Uruguay 85 87**** 80-95 *Data from Bedford, Paul, Adrian Penalver, and Chris Salmon: “Resolving The Sovereign Debt Crises: The Market-Based Approach And The Role Of The IMF,” Financial Stability Review, Bank of England, June 2005. ¶Data from Sturzenegger, Federico, and Jeromin Zettelmeyer: “Haircuts: Estimating Investor Losses In Sovereign Debt Restructurings 1998-2005,” IMF Working Paper, 2005. §Recovery values refer to tendered debt only. **2005 external debt exchange. ¶¶Data for Belize and Grenada is based on an estimate by Standard & Poor's. §§International bonds. ***Eurobonds. ¶¶¶MinFin3--a domestically issued, but dollar-denominated bond. §§§Principal notes/interest accrued notes. ****External debt. >--Greater than. N.A.--Not available. Sovereign Recovery Analysis Methodology Step 1: Defining The Default or Restructuring Scenario Standard & Poor's starts its recovery analysis by identifying the likely default or restructuring scenarios. These scenarios set the relevant parameters for the subsequent recovery analysis, as they envisage the economic, fiscal, and political conditions around default. Policy failure default scenarios, for instance, comprise a heterogeneous group of cases where a debt crisis is the result of gradually increasing economic or fiscal pressures. In such cases, policymakers fail to respond adequately, ultimately triggering a loss of credibility and default. Alternative scenarios may be linked to commodity price shocks, force majeure events, poor debt management, or changes in repayment willingness. Each of these has different implications for the postdefault restructuring environment. The default or restructuring scenarios underlying the recovery analysis typically are derived from the key rating constraints that affect the issuer credit rating. In those cases where very different default scenarios contribute significantly to the probability of default, we shall reflect this in the recovery analysis. Recovery factors Having defined the default or restructuring scenario, we classify the recovery factors into: The sovereign's ability to resume payments after default; The sovereign's recovery incentives; and The impact of official creditors. As with Standard & Poor's issuer credit rating criteria, there is no exact formula for combining the scores for each of the factors to determine recovery ratings. The analytical variables are interrelated and the weights are not fixed,

either across sovereigns or over time. Step 2: Assessing Recovery Ability Our analysis of sovereign recovery ability is based on a simulation of macroeconomic stresses that are expected to occur in a crisis situation. The simulated post-default debt indicators are then compared with debt capacity benchmarks to assess the need for debt adjustment after default (see chart 1). The economic stresses and debt capacity benchmarks are based on cross-sectional empirical evidence from 21 sovereign economic crises. (see chart 2 for an illustration of GDP stresses.) Chart 2 The severity of the stresses is evaluated in light of the default scenario. Contraction of GDP growth during a sovereign debt crisis may be exacerbated by a simultaneous financial sector crisis--possibly caused by extensive holdings of sovereign debt instruments, for instance. Similarly, the exchange rate stress may be considered particularly severe if the default scenario is likely to entail the end of a fixed exchange rate regime, as occurred in Argentina in 2001. By contrast, membership in a monetary union may mean that the exchange rate is not affected by the sovereign default. For instance, three of the eight members of the East Caribbean Central Bank have experienced a default that was not accompanied by any change in the East Caribbean dollar peg against the U.S. dollar. Standard & Poor's has derived debt capacity benchmarks from empirical data, using median debt indicators that were characteristic of sovereigns emerging from a default or crisis situation (see table 4). In the years immediately surrounding the crisis, a defaulting sovereign may more closely resemble other past defaulters than its own individual precrisis history. This assumption is supported by empirical evidence, which shows that debt indicators of post-default or post-crisis sovereigns were closer to each other than to each issuer's individual history three years prior to the central crisis year (see table 5). Table 4 Sovereign Postdefault Debt Capacity Levels 1995-2006 DERIVED FROM HISTORIC CRISIS EPISODES 'B' MEDIAN Public sector debt (% of GDP) 51 64 Total external debt (% of GDP) 50 57 Total external debt service (% of GDP) 16 7 Table 5 Comparison Of Sovereign Debt Constraint Indicators CROSS-SECTION VERSUS INDIVIDUAL HISTORY AVERAGE DIFFERENCE BETWEEN COUNTRY-SPECIFIC INDICATOR (T+3, T+4)… PUBLIC SECTOR DEBT/GDP (%) TOTAL EXTERNAL DEBT/GDP (%) TOTAL EXTERNAL DEBT SERVICE/GDP (%) ... and cross sectional median of indicator in t+3 and t+4 19.3 13.6 6.4 ... and issuer-specific pre-crisis indicator in t-3 24.4 17.2 8.2 t--The default or core crisis year. Nevertheless, the suitability of the debt capacity constraint is evaluated in light of the sovereign's recent debt servicing record, with some sovereigns demonstrably more capable of withstanding higher debt levels than other sovereigns. From this perspective, it is important to note that we by no means view the debt capacity levels as debt sustainability measures above which a specific sovereign would default. Rather, these are considered levels of debt that sovereigns historically have had under post-crisis conditions. The difference between the debt burden at default, as simulated by the economic stress scenario, and the debt capacity benchmarks gives an indication of the haircut that the sovereign may need to impose after default. That said, Standard & Poor's does not interpret its recovery ability analysis as setting a cap on the ultimate recovery rate estimate. Instead, we view our analysis as a first step, benchmarking sovereigns against both historical experience and against each other. Our ability analysis concludes with the examination of other characteristics of the sovereign that may influence its recovery ability. These characteristics include the issuer's post-default capacity to generate primary surpluses in order to fund higher recovery levels. Whether or not the sovereign will be willing or able to exercise this flexibility (with political considerations the most likely distraction) is also considered. Historical evidence on the issuer's ability to run primary fiscal balances provides prima facie support for the analysis. From a more forward-looking perspective, the issuer's fiscal flexibility will depend, among other things, on the default scenario (including the risk of violence or prolonged strikes) and associated output contraction, on its current tax rates and tax productivity, and on the composition of expenditures. To service foreign currency debt, the sovereign must secure foreign exchange. Consequently, an assessment of post-default external flexibility is important. The capacity to increase current account receipts (CARs) will depend on the country's export structure under the assumed default scenario. If the default results from a shock to commodity prices, for instance, the assumed post-default foreign-currency earning capacity will be impaired. Equally, the capacity to increase CARs after currency depreciation may be limited if exports have a high import content. On the other hand, remittances have a low correlation with economic conditions in the recipient country and may therefore be viewed as a stabilizing CAR inflow. External flexibility is also influenced by the nature of financial inflows. Capital flight will typically increase

in all countries around the time of a default, but the nature of prevailing financial inflows may suggest that this occurs to varying degrees, with foreign direct investment (FDI) and ongoing lending programs with official creditors likely to be more supportive of external flexibility. That said, capital that flows in as FDI might flow out in a different form. Foreign investors may use the assets they have bought with FDI as collateral to borrow money within the country and then repatriate it. During a crisis, FDI investors may also choose to repatriate their profits more quickly or reduce the liabilities of affiliates to their mother company. In these cases, the distinction between FDI and portfolio equity flows is often blurred. Similarly, programs with multilateral official creditors often entail conditions for disbursements that may be difficult to undertake in crisis conditions. The final step in our ability analysis is to address the possibility that additional debt may be consolidated within the restructuring. This may involve the sovereign adding other liabilities (into the restructuring such as the debt of state-owned enterprises, nonfinancial private sector entities, or financial institutions. Step 3: Evaluating Recovery Incentives The next stage of Standard & Poor's recovery analysis takes into account the factors that signal the sovereign's incentives to offer favorable recovery terms after default. Recovery incentives are likely to be affected by the sovereign's own default and restructuring history, as well as by recent restructuring precedents of other sovereign defaulters, particularly if the latter are sovereigns with economic or regional similarities. If the sovereign was a frequent defaulter in the past, this may indicate a low reputational cost of future defaults and low recoveries. Recovery incentives will also depend on the importance, for both the government and the domestic economy, of access to global goods and capital markets. A sovereign's incentives to offer recovery following default may also be influenced by its post-default political priorities. Incentives could be bolstered by the need to maintain international goodwill (in an effort to secure a free trade agreement, for instance). On the other hand, the diversion of resources toward domestic economic agents, such as social groups or financial institutions that have been particularly hurt by the sovereign default, indicates a lower incentive to repay external commercial creditors. Governments that pursue less market-oriented economic policies may be less willing to accept the validity of international investor claims. In its recovery analysis, Standard & Poor's factors in the expected post-default framework set by political and legal institutions. We consider the likelihood that a regime change (or several) may occur under the default scenario, particularly if a cooperative attitude to the outside world is not shared across the political spectrum, or if the there are strong and radical (or nationalistic) opposition movements in the country. The distribution of bargaining power between the sovereign and the creditors is also taken into account. In general, we expect the government's bargaining power to benefit from higher amounts of outstanding debt, suggesting that its recovery incentives may decline. By contrast, if the sovereign has issued smaller absolute stocks of debt, or if the sovereign (or indeed country as a whole) is reliant on a concentrated group of creditors for its financing, this may be detrimental to the government's bargaining power. Step 4: Impact of Official Creditors Standard & Poor's completes its recovery estimate with an appraisal of how the relationship with official creditors may evolve. Government lenders have on occasion been lenient in a sovereign default or crisis situation. This leniency has even included offering debt forgiveness or maturity extension, with few offsetting penalties, when political considerations favor such an approach. Defaulting sovereigns seeking relief on Paris Club debt (bilateral loans extended by governments and government-related entities) often reschedule quickly, in conjunction with an IMF program and funding, leaving commercial creditors with similarly high recovery rates. Historically, recovery rates have tended to be high when defaults have been 'induced' by Paris Club demands for comparability of treatment. Multilateral financial institutions such as the IMF and the World Bank are usually treated as preferred creditors. Therefore, a large stock of debt owed to such creditors may imply that the burden of adjustment will be borne by private creditors. The adoption of an IMF program, however, may also entail additional funding and might therefore work to the commercial creditors' advantage. In situations where problems are more manageable, the IMF and other international financial institutions (IFIs) may be more lenient during consolidation periods, as long as the sovereign continues to meet most of the conditions in the IMF agreement. Recovery would therefore be boosted by the repayment flexibility on IFI debt and by the fact that the required austerity measures under the IMF agreement are more likely to be implemented effectively. The potential for debt relief extended by other sovereign creditors or IFIs is also assessed. Factors considered here cover the defaulter's geopolitical importance, the

circumstances behind the default (a natural disaster, for example), or the degree of political affinity with governments of key creditors. Distinctive Characteristics Of Sovereign Recovery Ratings Comparison with sovereign issuer credit ratings A number of factors that Standard & Poor's has identified for its sovereign recovery rating analysis are similar to those considered in assessing the probability of sovereign default. Of particular importance in both cases are: The ability to bear prevailing debt levels burdens; The need to consider reputational costs; The effects of a prolonged loss of access to capital markets or of economic sanctions; and The desire to increase residents' confidence and their propensity to hold savings at home. Nevertheless, crisis dynamics and knock-on effects around the default or restructuring scenario (including currency depreciation, economic contraction, and political instability) may lead to conclusions on debt service payment ability and recovery incentives in the event of default that are distinct from those in a predefault situation. In general, these distinctions will grow as the default rating approaches investment grade. Standard & Poor's empirical research, for example, shows that historical sovereign recovery rates have been more closely correlated to the debt burden that built up during the crisis than to debt levels just prior to the crisis. Comparison with corporate recovery ratings The sovereign recovery environment differs from that of corporates in a number of ways. The absence of a sovereign insolvency framework and the inability to attach central government assets effectively means that incentives to repay following default are of crucial importance. On the other hand, a sovereign usually does not cease to exist and is therefore likely to retain links with investors. Sovereign stresses are simulated around default rather than on the path to default. This is because major crisis dynamics such as currency and bank runs and GDP contraction often occur during and after the crisis, and these often overshadow the initial stress on the path to default. Sovereign default triggers may also be rather qualitative in nature (credibility shocks, self-fulfilling expectations, political shocks, and microeconomic distortions, for example), and therefore there may be little deterioration of quantitative triggers prior to default. Finally, sovereigns have historically defaulted across a broad range of debt levels. Ex ante, it would therefore be challenging to determine the debt level (and by extension the size of the stresses) required to bring the sovereign to default.