

## Special Comment

# Moody's Global Sovereign

January 2008

## Iceland's Aaa Ratings at a Crossroads

### Summary

Iceland has earned Moody's Aaa sovereign ratings because it is an advanced economy with low government debt even as compared to other Aaa-rated sovereigns. However, also distinguishing Iceland from its Aaa-rated peers is its vulnerability to a confidence crisis, massive external debt, and sizeable contingent foreign currency liabilities stemming from its increasingly globalized banking system, which could accrue to the government in the unlikely event of a very severe financial crisis.

How can such a highly leveraged economy be rated Aaa?

The answer is that Moody's sovereign ratings for Iceland reflect the extremely high probability that the government would repay its debt as well as any contingent liabilities in a timely and orderly fashion. Iceland's current account deficit and high level of debt derive from private sector activity, but this does not mean that the government balance sheet would be fully impervious to the private sector's potential woes. Contingent foreign currency liabilities stemming from Iceland's big commercial banks have risen above comfort levels. Also, the conditions in the global credit markets have changed radically, and the balance of risks has worsened for highly leveraged economies and companies alike.

In our view, Iceland's authorities remain able to fend off a liquidity crisis, protect depositors, and avoid disruptions in payments systems. From the current vantage point, we expect that the government would be able to bring onto its balance sheet the additional debt associated with supporting the banking system without permanently taking its debt metrics outside the Aaa rating space. In addition, the Icelandic banks are themselves fundamentally healthy, with strong franchises, ample liquidity, and improved maturity structures for their capital markets funding.

On the other hand, Moody's has become more concerned that the growth of the country's internationalized banking system is stretching the authorities' ability to manage a crisis should one arise. A further material increase in contingent foreign currency liabilities beyond present levels, at least if unaccompanied by increased foreign currency reserves and/or explicit cooperation mechanisms amongst the central banks in which the Icelandic banks operate, would likely weaken the credit standing of the country, in Moody's view.

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**Moody's Investors Service**

## Iceland's Aaa Ratings at a Crossroads

### **Iceland's Credit Fundamentals: Solid Government Finances but Outsized Foreign Currency Contingent Liabilities**

The Icelandic government has very strong credit metrics that position it well compared to other governments, even advanced industrialized countries. The country has high per capita incomes of EUR 45,000, well-developed political, economic and social institutions, and low government debt. General government gross debt (including both domestic and external) stands at about 30% of GDP and 60% of revenues, as compared to twice those ratios for France and Germany, for example. Net debt of the general government is a negligible 8.2% of GDP. Iceland enjoys favorable demographics that protect government finances from population ageing-related spending pressures, and a fully-funded pension system with assets exceeding 130% of GDP, characteristics that also compare it favorably with other Aaa-rated sovereigns.

At the same time, however, the economy of Iceland is massively leveraged, with external debt to GDP of 500% and a negative net international investment position exceeding 100% of GDP. Much of this debt has been borrowed by the three big commercial banks to finance their international expansion. Indeed, the massive growth in bank balance sheets to a multiple of eight times Icelandic GDP has ballooned the government's contingent liabilities to extraordinary levels.

### **Credit Crunch and Contagion Risk Heighten Riskiness of Contingent Liabilities**

Today's challenging global liquidity conditions and increased market skepticism about banks' impaired assets and fundamental solvency have raised the possibility that a severe banking crisis could occur anywhere in the world. In almost any country, the government's own liquidity and borrowing capacity could be strained should current risk aversion lead to a massive call on bank liquidity. We further note that public policy responses – including announcement of government deposit guarantees – would likely cause the crisis of confidence to abate significantly in almost any highly-rated country such as Iceland. However, it is still important to consider the consequences of a low probability-high severity event into our worst-case scenarios for the countries, companies, banks and other securities that we rate.

The Icelandic banks have meaningfully increased the proportion of their funding derived from deposits as compared to funding raised via the wholesale market during the past two years. However, increased deposit mobilization, usually considered a more stable source of funding for their aggressive expansion, may turn into a new source of risk in light of the current global environment. The fact that most of the new deposits are sourced in countries other than Iceland may mean that they would more likely be withdrawn in the improbable but possible event of a confidence crisis affecting the Icelandic banks. While the major Icelandic banks differ in their business strategies and financial risks, a crisis of confidence hitting any one of the Icelandic banks could also trigger contagion to the others. This potential for contagion among the Icelandic banks was witnessed in the mini-crisis of early 2006 and again recently with the widening of the banks' credit default swap spreads.

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### The Stability of Iceland's Aaa Sovereign Ratings Depends on its Ability to Handle Contingent Liabilities

Moody's evaluation of the Icelandic authorities' willingness and ability to handle a foreign currency-generated liquidity crisis in the banking system has important implications for the sovereign's Aaa rating. Moody's believes there is a high degree of sovereign willingness to support the banking system because of the inherent importance of financial intermediation to the economy, and also because of its responsibility as the lender of last resort to protect local depositors.

Concerns do exist, however, about the sovereign's longer-term ability to provide necessary support to the banks in the event of a severe crisis. These concerns reflect the outsized burden of the government's foreign currency-denominated contingent liabilities compared to the government's available foreign currency resources and borrowing capacity.

Like other countries exposed to similar potential risks, there are two important criteria that Iceland needs to fulfill in order to maintain its Aaa rating:

#### 1. Limitless flexibility and liquidity

Moody's believes a fundamental trait that characterizes a Aaa-rated government is its virtually limitless access to liquidity, both foreign and local currency, to enable it to handle a systemic shock in any important sector of the economy.

By virtually limitless liquidity, we mean that the government, the central bank, or any other public or private institution so designated can mobilize whatever financial assets are necessary to handle a severe problem. In terms of the banking system, this means that the sovereign or its designees would be able to provide liquidity in either foreign or local currency as required to ensure the proper functioning of the financial system and the protection of depositors. It means, however, that other creditors, i.e., bondholders, would not necessarily be fully covered by the sovereign. This risk is reflected in the lower ratings of the banks relative to the sovereign.

#### 2. Strong government debt credit metrics

A second feature of Aaa governments is more arithmetic, dealing with the impact of a crisis on government financial ratios over the medium to long term. If the debt of a government were to permanently rise to a level relative to its resources inconsistent with a Aaa rating, or if support provided by the sovereign to any sector in the economy experiencing a crisis would lead to a durable and excessive increase in government debt ratios to levels no longer compatible with other Aaa peers, the sovereign would likely lose its coveted Aaa status.

### Iceland's Sovereign Could Withstand Severe Stress to Icelandic Banks

Setting aside for a moment the intrinsic health of the Icelandic banks' operations, it is instructive to explore whether Iceland's Aaa ratings could continue to meet the liquidity and arithmetic criteria described above in the event of an implausible worst-case scenario involving severe stress on its banks.

#### The Aaa Liquidity Criteria

First, as in almost any country, and certainly any highly-rated country such as Iceland, the central bank is fully capable of dealing with a liquidity problem that may emerge in its own currency – hence the Aaa local currency deposit ceiling. There is a bigger question mark in Iceland's case regarding foreign currency bank liabilities; the swelling and internationalization of the Icelandic banks' balance sheets has resulted in the accumulation of EUR 40 billion of deposits in the system, of which only about EUR 10 billion are local (mostly ISK) deposits in Iceland. (Note, Icelandic GDP is equivalent to about EUR 13 billion). The remaining EUR 30 billion are foreign

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currency deposits in overseas branches or subsidiaries. Of this, EUR 16 billion of deposits (foreign currency) are in overseas branches. This EUR 16 billion can be considered a contingent liability of the sovereign in times of extreme stress. (Actually, this measure of contingent liability is exaggerated because branch deposits also fall under local deposit guarantee schemes. However, the ultimate guarantee does come from the home country.) Subsidiary deposits, by contrast, do not pose the same risk since these deposits benefit to a large extent from host country support. At the very least, any contagion to the parent banks from operations outside Iceland would be slowed by local ring-fencing in those countries.

While Moody's assigns a very low probability (approaching zero) of a run on all EUR 16 billion of overseas branch deposits, it still is instructive to analyze this worst-case scenario to illustrate the sovereign's ability to handle such a crisis, especially to those alarmed by the headline liability numbers.

The first line of defense to the banks from a run on overseas branch deposits would come from liquid assets of EUR 3.2 billion available to the Icelandic bank parent companies and branches. The banks then have alternative sources of funds available to them such as liquidity portfolios and back-up lines, amounting in aggregate to about EUR 17 billion (including those arranged by their subsidiaries), which could be tapped as the next line of defense. Assuming conservatively that EUR 4-6 billion of this could be mobilized by the parent banks for the overseas branches, the likely gap to be plugged by the sovereign falls, in a truly extreme stress scenario, in the range of EUR 7-9 billion. See Table 1 below.

**Table 1: Potential Liquidity Gap in (Implausible) Worst Case Scenario (numbers in euros billions)**

Potential Liquidity Gap		Available Assets	
Total Deposits in Branches of Icelandic Banks	16	<b>Banks</b>	
		Banks' Liquid Assets Available	3
Total	16	Banks' Alternative Sources of Funds	(4-6)
		<b>Total Banks' Financing Capacity (I)</b>	<b>(7-9)</b>
		<b>Sovereign</b>	
		Reserves and Available Backup Lines	2
		CP Programmes	1
		<b>Sovereign Standing Liquidity (II)</b>	<b>3</b>
		<b>Additional Borrowing by Sovereign = Remaining Financing Gap (III)</b>	<b>(4-6)</b>
		<b>Total (I+II+III)</b>	<b>16</b>

The Icelandic government and central bank authorities' readily available liquidity resources total about EUR 2 billion, mostly official foreign exchange reserves held at the Central Bank of Iceland, but the Bank and the government also have various committed and uncommitted backup lines. The authorities additionally can borrow up to a total of EUR 1 billion under existing US dollar or euro commercial paper programs. Finally, Moody's believes that Iceland could also rely on financial support from other Nordic governments although no explicit financial arrangements are in place. It has signed a memorandum of understanding with the four other Nordic central banks regarding the coordination of financial crisis management in the region's banks. Indeed, a good part of the Icelandic banks' overseas operations are based in other Nordic countries so there is a

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common interest in the financial stability of the Icelandic banks. Furthermore, the amount of money that would be required to prop up the Icelandic financial institutions would be small and easily manageable by the other Nordics' standards.

In sum, Moody's remains relatively confident that the Icelandic authorities could issue guarantees and raise debt in the financial markets, even if at increased cost, to plug the remaining foreign currency gap (estimated in the table above at EUR 4-6 billion) posed even by the very unlikely withdrawal of all deposits from the banks' foreign branches. A local currency bank recapitalization might be inflationary, depending on how it would be conducted, but would not risk the functioning of the financial system. In sum, the authorities have sufficient liquidity in both foreign and local currency to manage a systemic crisis. **Hence, criteria #1 on liquidity and flexibility is largely satisfied**, although the "limitless" adjective is severely tested.

### The Aaa Arithmetic Debt Criteria

Iceland's low government debt is critical to its ability to withstand the shock of a financial crisis as large as one potentially originating from its banking system. The combined costs of an extraordinary crisis to the government would potentially involve the sum of (1) the foreign currency liquidity needs to be provided by the sovereign as specified above; (2) the cost of bank recapitalization in local currency (perhaps 10% of GDP), and (3) a sizeable (perhaps 30-40%) devaluation.

Taken together and in isolation, these blows would worsen the government's debt metrics substantially. However, we would also consider two other seminal factors, notably (4) sovereign intervention would likely stop such a full-blown liquidity crisis from developing, and (5) the probability that the Icelandic banks would become foreign acquisition targets. These latter two factors would ameliorate the costs and consequences of an expensive sovereign rescue of the banks.

Taking all these features into account, Moody's would expect the government's debt metrics to remain within Aaa margins, not exceeding 70% of GDP. **Hence, criteria #2 on the government's credit metrics is satisfied.**

## Conclusion: Iceland's Ability to Withstand a Banking System Crisis is Strong But Not Infinite

Moody's sovereign ratings for Iceland are predicated on a number of characteristics, both qualitative and quantitative, that support the Aaa assessment. At the same time, Moody's top rating must be applied only to those countries able to manage a changing reality, such as stress scenarios in which contingent liabilities pose serious challenges to the authorities. Many factors could soften market concerns about Iceland's credit fundamentals, not least the banks' continued profitable operations that would belie worries about their large scale relative to the Icelandic economy. A tighter regulatory framework governing the banks' own liquidity and/or the enhancement of liquidity buffers by the sovereign would help provide breathing room for the system to absorb the impact of any future crisis.

Finally, any development such as scaling back the Icelandic banks' foreign branch operations or migrating their headquarters overseas would ease the sovereign's foreign currency-denominated contingent liabilities. In so doing, such changes would also significantly tilt the balance of financial risks for the Icelandic government in a more favorable direction.

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### Moody's Related Research

#### Credit Opinion:

- Iceland, August 2007

#### Analysis:

- Iceland, August 2006 (98549)

#### Special Comment:

- Iceland's Solvency and Liquidity are Not at Risk, April 2006 (97107)

*To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.*

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