

PUTNAM INVESTMENTS

October 21, 2005

Send to: protocol@isda.org
International Swaps and Derivatives Association, Inc.
360 Madison Avenue, 16th Floor
New York, NY 10017

Dear Sirs,

2005 Novation Protocol - Adherence

The purpose of this letter is to confirm our adherence to the 2005 Novation Protocol as published by the International Swaps and Derivatives Association, Inc. on September 12, 2005 (the "Protocol"). This letter constitutes an Adherence Letter as referred to in the Protocol. The definitions and provisions contained in the Protocol are incorporated into this Adherence Letter, which will supplement and form part of the Master Agreement (now or in the future) between us and each other Adhering Party.

1. Specified Terms

The terms of Annex 1 shall apply.

2. Appointment as Agent and Release

We hereby appoint ISDA as our agent for the limited purposes of the Protocol and accordingly we waive, and hereby release ISDA from, any rights, claims, actions or causes of action whatsoever (whether in contract, tort or otherwise) arising out of or in any way relating to this Adherence Letter or our adherence to the Protocol or any actions contemplated as being required by ISDA.

3. Contact Details

Our contact details for purposes of this Adherence Letter are:

Name: Putnam Investments,
Address: Legal Department, One Post Office Square, Boston, MA 02109
Telephone: (617) 760-1858
Fax: (617) 760-1625
Email: Robert_Leveille@putnam.com



We consent to the publication of the conformed copy of this letter by ISDA and to the disclosure by ISDA of the contents of this letter.

Yours faithfully,

Putnam Investment Management, LLC acting on behalf of the funds and accounts specified in the relevant Master Agreement

Name: Robert R. Leveille
Title: Senior Vice President
Signature: Robert R. Leveille

