

Putnam VT Diversified Income Fund

Prospectus

4 | 30 | 10

Fund summary	2
What are the fund's main investment strategies and related risks?	3
Who oversees and manages the fund?	6
How to buy and sell fund shares	7
How does the fund price its shares?	7
Distribution plan and payments to dealers	8
Policy on excessive short-term trading	9
Fund distributions and taxes	10
Financial highlights	10

This prospectus explains what you should know about Putnam VT Diversified Income Fund, one of the funds of Putnam Variable Trust, which are available for purchase by separate accounts of insurance companies. Please read it carefully. Certain shares of other funds of the Trust are offered through other prospectuses.

These securities have not been approved or disapproved by the Securities and Exchange Commission nor has the Commission passed upon the accuracy or adequacy of this prospectus. Any statement to the contrary is a crime.

Fund summary

Goal

Putnam VT Diversified Income Fund seeks as high a level of current income as Putnam Investment Management, LLC (Putnam Management) believes is consistent with preservation of capital.

Fees and expenses

The following table describes the fees and expenses you may pay if you buy and hold shares of the fund. The fees and expenses information does not reflect insurance-related charges or expenses borne by contract holders indirectly investing in the fund. If it did, expenses would be higher.

Annual fund operating expenses

(expenses you pay each year as a percentage of the value of your investment)

Share class	Management fees	Distribution and service (12b-1) fees	Other expenses	Acquired fund operating expenses	Total annual fund operating expenses*
Class IA	0.55%	N/A	0.20%	0.01%	0.76%
Class IB	0.55%	0.25%	0.20%	0.01%	1.01%

* Restated to reflect projected expenses under a new management contract effective 1/1/10, changes to the fund's investor servicing contract, and a new expense arrangement, which gives effect to changes in the allocation of certain expenses among the Putnam funds.

Example

The following hypothetical example is intended to help you compare the cost of investing in the fund with the cost of investing in other funds. The example does not reflect insurance-related charges or expenses. If it did, expenses would be higher. It assumes that you invest \$10,000 in the fund for the time periods indicated and then redeem or hold all your shares at the end of those periods. It assumes a 5% return on your investment each year and that the fund's operating expenses remain the same. Your actual costs may be higher or lower.

Share class	1 year	3 years	5 years	10 years
Class IA	\$78	\$243	\$422	\$942
Class IB	\$103	\$322	\$558	\$1,239

Portfolio turnover

The fund pays transaction-related costs when it buys and sells securities (or "turns over" its portfolio). A higher turnover rate may indicate higher transaction costs. These costs, which are not reflected in annual fund operating expenses or the above example, affect fund performance. The fund's turnover rate in the most recent fiscal year was 168%.

Investments, risks, and performance

Investments

We invest mainly in bonds that are securitized debt instruments (such as mortgage-backed investments) and other obligations of companies and governments worldwide, are either investment-grade or below investment-grade (sometimes referred to as "junk bonds") and have intermediate- to long-term maturities (three years or longer). We may consider, among other things, credit, interest rate and prepayment risks, as well as general market conditions, when deciding whether to buy or sell investments. We may also use derivatives, such as futures, options and swap contracts, for both hedging and non-hedging purposes.

Risks

It is important to understand that you can lose money by investing in the fund.

The prices of bonds in the fund's portfolio may fall or fail to rise over extended periods of time for a variety of reasons, including both general financial market conditions and factors related to a specific issuer or industry. This risk includes interest rate risk, which means the prices of the fund's investments are likely to fall if interest rates rise. Bond investments are also subject to credit risk, which is the risk that the issuers of the fund's investments may default on payment of interest or principal. Interest rate risk is generally greater for longer-term bonds, and credit risk is generally greater for below-investment-grade bonds (a significant part of the fund's investments). Mortgage-backed investments carry the risk that they may increase in value less when interest rates decline and decline in value more when interest rates rise. International investments traded in foreign currencies carry the risk of the adverse impact of exchange rates on values. International investments may carry risks associated with potentially less stable economies or governments, such as the risk of seizure by a foreign government, the imposition of currency or other restrictions, or high levels of inflation or deflation. Emerging-market securities can be illiquid. Our use of derivatives may increase these risks by, for example, increasing investment exposure or, in the case of many over-the-counter instruments, by being illiquid because of the potential inability to terminate or sell derivatives positions.

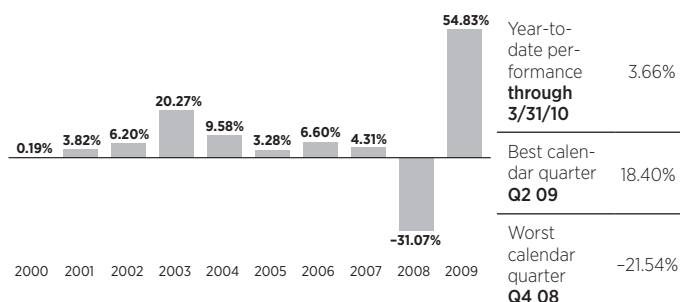
The fund may not achieve its goal, and it is not intended to be a complete investment program. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency.

Performance

The performance information below gives some indication of the risks associated with an investment in the fund by showing the fund's performance year to year and over time. The performance information does not reflect insurance-related charges or expenses. If it did, performance would be lower.

Please remember that past performance is not necessarily an indication of future results.

Annual total returns for class IA shares



Average annual total returns

(for periods ending 12/31/09)

Share class	1 year	5 years	10 years
Class IA	54.83%	4.15%	5.96%
Class IB	55.35%	4.16%	5.82%
Barclays Capital Aggregate Bond Index (no deduction for fees or expenses)	5.93%	4.97%	6.33%
Citigroup Non-U.S. World Government Bond Index (no deduction for fees or expenses)	4.39%	4.46%	6.60%
JP Morgan Developed High Yield Index (no deduction for fees or expenses)	58.76%	6.44%	6.94%

The fund's performance is compared to the Barclay's Capital Aggregate Bond Index, an unmanaged index of U.S. investment-grade fixed-income securities. The fund's performance is also compared to the Citigroup Non-U.S. World Government Bond Index, an unmanaged index of international investment-grade fixed-income securities, excluding the U.S., and the JPMorgan Developed High Yield Index, an unmanaged index of high-yield fixed-income securities issued in developed countries.

Your fund's management

Investment advisor

Putnam Investment Management, LLC

Portfolio managers

D. William Kohli, Team Leader, Portfolio Construction and Global Strategist, portfolio manager of fund since 1994

Michael Atkin, Director of Sovereign Research, portfolio manager of fund since 2007

Rob Bloemker, Head of Fixed Income, portfolio manager of fund since 2005

Kevin Murphy, Team Leader, High Grade Credit, portfolio manager of fund since 2007

Paul Scanlon, Team Leader, U.S. High-Yield, portfolio manager of fund since 2005

Purchase and sale of fund shares

Fund shares are offered to separate accounts of various issuers. The fund requires no minimum investment, but insurers may require minimum investments from those purchasing variable insurance products for which the fund is an underlying investment option. Shares may be purchased or sold by submitting an order to Putnam Retail Management any day the New York Stock Exchange (NYSE) is open. Some restrictions may apply.

Tax information

The fund normally distributes any net investment income and any net realized capital gains annually. Generally, owners of variable insurance contracts are not taxed currently on income or gains realized with respect to such contracts. However, some distributions from such contracts may be taxable at ordinary income tax rates and distributions to contract owners younger than 59 ½ may be subject to a 10% penalty tax. For more information, please see the prospectus (or other offering document) for your variable insurance contract.

Payments to insurance companies

The fund is offered as an underlying investment option for variable insurance contracts. The fund and its related companies may make payments to the sponsoring insurance company (or its affiliates) and dealers for distribution and/or other services. These payments may create an incentive for the insurance company to include the fund, rather than another investment, as an option in its products and may create a conflict of interest for dealers in recommending the fund over another investment. The prospectus (or other offering document) for your variable insurance contract may contain additional information about these payments.

What are the fund's main investment strategies and related risks?

This section contains greater detail on the fund's main investment strategies and the related risks you would face as a fund shareholder. It is important to keep in mind that risk and reward generally go hand in hand; the higher the potential reward, the greater the risk. As mentioned in the fund summary, we pursue the fund's goal by investing mainly in bonds and securitized debt instruments from multiple sectors, including the U.S. and investment-grade sector, the high yield sector and the international sector. Under normal market conditions, we invest 15% - 65% of the fund's net assets in each of (a) the U.S. and investment-grade sector, including U.S. government securities and investment-grade bonds of U.S. companies; (b) the high yield sector, including lower-rated bonds of U.S. companies; and (c) the international sector, including bonds of foreign governments and companies, and including both investment-grade and lower-rated securities. We will not invest less than 15% of the fund's net assets in U.S. government securities.

- **Interest rate risk.** The values of bonds and other debt instruments usually rise and fall in response to changes in interest rates. Declining interest rates generally increase the value of existing debt instruments, and rising interest rates generally decrease the value of existing debt instruments. Changes in a debt instrument's value usually will not affect the amount of interest income paid to the fund, but will affect the value of the fund's shares. Interest rate risk is generally greater for investments with longer maturities.

In evaluating the potential performance of an investment in the fund, investors may find it useful to compare the fund's current dividend rate with its "yield," which is computed on a yield-to-maturity basis in accordance with SEC regulations and which reflects amortization of market premiums.

Some investments give the issuer the option to call or redeem an investment before its maturity date. If an issuer calls or redeems an investment during a time of declining interest rates, we might have to reinvest the proceeds in an investment offering a lower yield, and therefore the fund might not benefit from any increase in value as a result of declining interest rates.

- **Credit risk.** Investors normally expect to be compensated in proportion to the risk they are assuming. Thus, debt of issuers with poor credit prospects usually offers higher yields than debt of issuers with more secure credit. Higher-rated investments generally have lower credit risk.

We may invest up to 70% of the fund's total assets in higher-yield, higher-risk debt investments that are rated below BBB or its equivalent at the time of purchase by each nationally recognized securities rating agency rating such investments, or are unrated investments that we believe are of comparable quality. We may invest up to 5% of the fund's total assets in debt investments rated below CCC or its equivalent, at the time of purchase, by each agency rating such investments, or in unrated investments that we believe are of comparable quality. This includes investments in the lowest rating category of the rating agency. We will not necessarily sell an investment if its rating is reduced after we buy it.

Investments rated below BBB or its equivalent are below investment grade. This rating reflects a greater possibility that the issuers may be unable to make timely payments of interest and principal and thus default. If this happens, or is perceived as likely to happen, the values of those investments will usually be more volatile and are likely to fall. A default or expected default could also make it difficult for us to sell the investments at prices approximating the values we had previously placed on them. Lower-rated debt usually has a more limited market than higher-rated debt, which may at times make it difficult for us to buy or sell certain debt instruments or to establish their fair value. Credit risk is generally greater for zero coupon bonds and other investments that are issued at less than their face value and that are required to make interest payments only at maturity rather than at intervals during the life of the investment.

Credit ratings are based largely on the issuer's historical financial condition and the rating agencies' investment analysis at the time of rating. The rating assigned to any particular investment does not necessarily reflect the issuer's current financial condition, and does not reflect an assessment of an investment's volatility or liquidity. Although we consider credit ratings in making investment decisions, we perform our own investment analysis and do not rely only on ratings assigned by the rating agencies. Our success in achieving the fund's investment objective may depend more on our own credit analysis when we buy lower quality bonds than when we buy higher quality bonds. We may have to participate in legal proceedings involving the issuer. This could increase the fund's operating expenses and decrease its net asset value.

Although investment-grade investments generally have lower credit risk, they may share some of the risks of lower-rated investments. U.S. government investments generally have the least credit risk, but are not completely free of credit risk. While some investments, such as U.S. Treasury obligations and Ginnie Mae certificates, are backed by the full faith and credit of the U.S. government, others are backed only by the credit of the issuer. Mortgage-backed securities may be subject to the risk that underlying borrowers will be unable to meet their obligations.

- **Prepayment risk.** Traditional debt investments typically pay a fixed rate of interest until maturity, when the entire principal amount is due. By contrast, payments on securitized debt instruments, including mortgage-backed and asset-backed investments, typically include both interest and partial payment of principal. Principal may also be prepaid voluntarily, or as a result of refinancing or foreclosure. We may have to invest the proceeds from prepaid investments in other investments with less attractive terms and yields. Compared to debt that cannot be prepaid, mortgage-backed investments are less likely to increase in value during periods of declining interest rates and have a higher risk of decline in value during periods of rising interest rates. Such investments may increase the volatility of the fund. Some mortgage-backed investments receive only the interest portion or the principal portion of payments on the underlying mortgages. The yields and values of these investments are extremely sensitive to changes in interest rates and in the rate of principal payments on the underlying mortgages. The market for these investments may be volatile and limited, which may make them difficult to buy or sell. Asset-backed securities, which are subject to risks similar to those of mortgage-backed securities, are also structured like mortgage-backed securities, but instead of mortgage loans or interests in mortgage loans, the underlying assets may include such items as motor vehicle installment sales or installment loan contracts, leases of various types of real and personal property and receivables from credit card agreements.

• **Foreign investments.** The fund considers a foreign company to be one that is domiciled outside the United States or has its principal operations located outside the United States. Foreign investments involve certain special risks, including:

- Unfavorable changes in currency exchange rates: Foreign investments are typically issued and traded in foreign currencies. As a result, their values may be affected by changes in exchange rates between foreign currencies and the U.S. dollar.
- Political and economic developments: Foreign investments may be subject to the risks of seizure by a foreign government, imposition of restrictions on the exchange or export of foreign currency, and tax increases.
- Unreliable or untimely information: There may be less publicly available information about a foreign company than about most U.S. companies, and foreign companies are usually not subject to accounting, auditing and financial reporting standards and practices as stringent as those in the United States.
- Limited legal recourse: Legal remedies for investors may be more limited than the remedies available in the United States.
- Limited markets: Certain foreign investments may be less liquid (harder to buy and sell) and more volatile than U.S. investments, which means we may at times be unable to sell these foreign investments at desirable prices. For the same reason, we may at times find it difficult to value the fund's foreign investments.
- Trading practices: Brokerage commissions and other fees are generally higher for foreign investments than for U.S. investments. The procedures and rules governing foreign transactions and custody may also involve delays in payment, delivery or recovery of money or investments.
- Sovereign issuers: The willingness and ability of sovereign issuers to pay principal and interest on government securities depends on various economic factors, including the issuer's balance of payments, overall debt level, and cash flow from tax or other revenues.

The risks of foreign investments are typically increased in less developed countries, which are sometimes referred to as emerging markets. For example, political and economic structures in these countries may be changing rapidly, which can cause instability. These countries are also more likely to experience high levels of inflation, deflation or currency devaluation, which could hurt their economies and securities markets. For these and other reasons, investments in emerging markets are often considered speculative.

Certain of these risks may also apply to some extent to U.S.-traded investments that are denominated in foreign currencies, investments in U.S. companies that are traded in foreign markets, or investments in U.S. companies that have significant foreign operations.

• **Derivatives.** We may engage in a variety of transactions involving derivatives, such as futures, options and swap contracts. Derivatives are financial instruments whose value depends upon, or is derived from, the value of something else, such as one or more underlying investments, pools of investments, indexes or currencies. We may make use of "short" derivatives positions, the values of which move in the opposite direction from the price of the underlying investment, pool of investments, index or currency. We may use derivatives both for hedging and non-hedging purposes. For example, we may use derivatives to increase or decrease the fund's exposure to long- or short-term interest rates (in the United States or abroad) or as a substitute for a direct investment in the securities of one or more issuers. However, we may also choose not to use derivatives, based on our evaluation of market conditions or the availability of suitable derivatives. Investments in derivatives may be applied toward meeting a requirement to invest in a particular kind of investment if the derivatives have economic characteristics similar to that investment.

Derivatives involve special risks and may result in losses. The successful use of derivatives depends on our ability to manage these sophisticated instruments. Some derivatives are "leveraged," which means that they provide the fund with investment exposure greater than the value of the fund's investment in the derivatives. As a result, these derivatives may magnify or otherwise increase investment losses to the fund. The risk of loss from certain short derivatives positions is theoretically unlimited. The prices of derivatives may move in unexpected ways due to the use of leverage or other factors, especially in unusual market conditions, and may result in increased volatility.

Other risks arise from the potential inability to terminate or sell derivatives positions. A liquid secondary market may not always exist for the fund's derivatives positions at any time. In fact, many over-the-counter instruments (investments not traded on an exchange) will not be liquid. Over-the-counter instruments also involve the risk that the other party to the derivatives transaction will not meet its obligations. For further information about the risks of derivatives, see the Trust's Statement of Additional Information (SAI).

• **Floating rate loans.** Floating rate loans are debt obligations with interest rates that adjust or "float" periodically (normally on a monthly or quarterly basis) based on a generally recognized base rate such as LIBOR or the prime rate offered by one or more major U.S. banks. While most floating rate loans are below investment grade in quality, most also are senior in rank in the event of bankruptcy to most other securities of the borrower such as common stock or public bonds. Floating rate loans are also normally secured by specific collateral or assets of the borrower so that the holders of the loans will have a priority claim on those assets in the event of default or bankruptcy of the issuer.

Floating rate loans generally are less sensitive to interest rate changes than obligations with fixed interest rates but may decline in value if their interest rates do not rise as much, or as quickly, as interest rates in general. Conversely, floating rate instruments will not generally increase in value if interest rates decline. Changes in interest rates will also affect the amount of interest income the fund earns on its floating rate investments. Most floating rate loans allow for prepayment of principal without penalty. If a borrower prepays a loan, we might have to reinvest the proceeds in an investment that may have lower yields than the yield on the prepaid loan or might not be able to take advantage of potential gains from increases in the credit quality of the issuer.

Although the market for the types of floating rate loans in which the fund invests has become increasingly liquid over time, this market is still developing, and there can be no assurance that adverse developments with respect to this market or particular borrowers will not prevent the fund from selling these loans at their market values when we consider such a sale desirable.

- **Other investments.** In addition to the main investment strategies described above, we may make other types of investments, such as investments in asset-backed, hybrid and structured bonds and notes, preferred securities that would be characterized as debt securities under applicable accounting standards and tax laws, and assignments of and participations in fixed and floating rate loans. The fund may also loan its portfolio securities to earn income. These practices may be subject to other risks, as described in the SAI.
- **Alternative strategies.** Under normal market conditions, we keep the fund's portfolio fully invested, with minimal cash holdings. However, at times we may judge that market conditions make pursuing the fund's usual investment strategies inconsistent with the best interests of its shareholders. We then may temporarily invest some or all of the fund's assets using alternative strategies that are mainly designed to limit losses. However, we may choose not to use these strategies for a variety of reasons, even in very volatile market conditions. These strategies may cause the fund to miss out on investment opportunities, and may prevent the fund from achieving its goal.
- **Changes in policies.** The Trustees may change the fund's goal, investment strategies and other policies without shareholder approval, except as otherwise indicated.
- **Portfolio turnover rate.** The fund's portfolio turnover rate measures how frequently the fund buys and sells investments. A portfolio turnover rate of 100%, for example, would mean that the fund sold and replaced securities valued at 100% of the fund's assets within a one-year period. From time to time the fund may engage in frequent trading. Funds with high turnover may be more likely to realize capital gains that must be distributed to shareholders as taxable income. High turnover may also cause a fund to pay more brokerage commissions and other transaction costs, which may detract

from performance. The fund's portfolio turnover rate and the amount of brokerage commissions it pays will vary over time based on market conditions.

- **Portfolio holdings.** The SAI includes a description of the fund's policies with respect to the disclosure of its portfolio holdings. For more specific information on the fund's portfolio, you may visit the Putnam Investments website, putnam.com/individual, and click on *Annuities*. The fund's top 10 holdings and related portfolio information may be viewed monthly beginning approximately 15 days after the end of each month, and full portfolio holdings of the fund may be viewed beginning on the last business day of the month after the end of each calendar quarter. This information will remain available on the website until the fund files a Form N-CSR or N-Q with the Securities and Exchange Commission (SEC) for the period that includes the date of the information, after which such information can be found on the SEC's website at <http://www.sec.gov>.

Who oversees and manages the fund?

The fund's Trustees

As a shareholder of a mutual fund, you have certain rights and protections, including representation by a Board of Trustees. The Putnam Funds' Board of Trustees oversees the general conduct of the fund's business and represents the interests of the Putnam fund shareholders. The Putnam Funds' Board of Trustees includes Trustees who are elected by shareholder vote at least once every five years and at least 75% of whom are independent (not an officer of the fund or affiliated with Putnam Management).

The Trustees periodically review the fund's investment performance and the quality of other services such as administration, custody, and investor services. At least annually, the Trustees review the fees paid to Putnam Management and its affiliates for providing or overseeing these services, as well as the overall level of the fund's operating expenses. In carrying out their responsibilities, the Trustees are assisted by an administrative staff, auditors and legal counsel that are selected by the Trustees and are independent of Putnam Management and its affiliates.

Contacting the fund's Trustees

Address correspondence to:
The Putnam Funds Trustees
One Post Office Square
Boston, MA 02109

The fund's investment manager

The Trustees have retained Putnam Management, which has managed mutual funds since 1937, to be the fund's investment manager, responsible for making investment decisions for the fund and managing the fund's other affairs and business. The basis for the Trustees' approval of the fund's management and sub-management contracts described below is discussed in the fund's annual report to shareholders dated December 31,

2009. The fund paid Putnam Management a quarterly management fee, and currently pays a monthly management fee, for these services based on the fund's average net assets. The fund paid Putnam Management a management fee (after any applicable waivers) of 0.57% of average net assets for the fund's last fiscal year. Putnam Management's address is One Post Office Square, Boston, MA 02109.

In late 2009, shareholders approved a new management contract for the fund, the terms of which are contained in the SAI.

Putnam Management has retained its affiliate Putnam Investments Limited (PIL) to make investment decisions for such fund assets as may be designated from time to time for its management by Putnam Management. Putnam Management (and not the fund) pays a quarterly sub-management fee to PIL for its services at the annual rate of 0.40% of the average aggregate net asset value of any fund assets managed by PIL. PIL, which provides a full range of international investment advisory services to institutional clients, is located at Cassini House, 57-59 St James's Street, London, England, SW1A 1LD.

Pursuant to this arrangement, Putnam investment professionals who are based in foreign jurisdictions may serve as portfolio managers of the fund or provide other investment services, consistent with local regulations.

- **Portfolio managers.** The officers of Putnam Management identified below are primarily responsible for the day-to-day management of the fund's portfolio.

Portfolio Managers	Joined fund	Employer	Positions over past five years
D. William Kohli	1994	Putnam Investments 1994 - Present	Team Leader, Portfolio Construction, Global Strategy Previously, Director of Core Fixed Income Team
Michael Atkin	2007	Putnam Investments 1997 - Present	Director of Sovereign Research Previously, Senior Economist and Team Leader, Country Analysis
Rob Bloemker	2005	Putnam Investments 1999 - Present	Head of Fixed Income Previously, Deputy Head of Investments; Chief Investment Officer, Fixed-Income Team; Team Leader, Mortgage and Government; Mortgage Specialist
Kevin Murphy	2008	Putnam Investments 1999 - Present	Team Leader, High Grade Credit Previously, Investment Strategist
Paul Scanlon	2005	Putnam Investments 1999 - Present	Team Leader, U.S. High-Yield Previously, Portfolio Manager

The SAI provides information about these individuals' compensation, other accounts managed by these individuals and these individuals' ownership of securities in the fund.

How to buy and sell fund shares

The Trust has an underwriting agreement relating to the fund with Putnam Retail Management, One Post Office Square, Boston, Massachusetts 02109. Putnam Retail Management presently offers shares of the fund continuously to separate accounts of various insurers. The underwriting agreement presently provides that Putnam Retail Management accepts orders for shares at net asset value and no sales commission or load is charged.

Shares are sold or redeemed at the net asset value per share next determined after receipt of an order. Orders for purchases or sales of shares of the fund must be received by Putnam Retail Management before the close of regular trading on the NYSE in order to receive that day's net asset value. No fee is charged to a separate account when it redeems fund shares.

Please check with your insurance company to determine which funds are available under your variable annuity contract or variable life insurance policy. Certain funds may not be available in your state due to various insurance regulations. This prospectus should be read in conjunction with the prospectus of the separate account of the specific insurance product which accompanies this prospectus.

The fund currently does not foresee any disadvantages to policyowners arising out of the fact that the fund offers its shares to separate accounts of various insurance companies to serve as the investment medium for their variable products. Nevertheless, the Trustees intend to monitor events in order to identify any material irreconcilable conflicts which may possibly arise, and to determine what action, if any, should be taken in response to such conflicts. If such a conflict were to occur, one or more insurance companies' separate accounts might be required to withdraw their investments in the fund and shares of another fund may be substituted. This might force the fund to sell portfolio securities at disadvantageous prices. In addition, the Trustees may refuse to sell shares of the fund to any separate account or may suspend or terminate the offering of shares of the fund if such action is required by law or regulatory authority or is in the best interests of the shareholders of the fund. Under unusual circumstances, the Trust may suspend repurchases or postpone payment for up to seven days or longer, as permitted by federal securities law. Redemption proceeds may be paid in securities or other property rather than in cash if Putnam determines it is in the best interest of the fund.

How does the fund price its shares?

The price of the fund's shares is based on its net asset value (NAV). The NAV per share of each class equals the total value of its assets, less its liabilities, divided by the number of its outstanding shares. Shares are only valued as of the close of regular trading on the NYSE each day the exchange is open.

The fund values its investments for which market quotations are readily available at market value. The fund values all other investments and assets at their fair value, which may differ from recent market prices. Market quotations are not considered to be readily available for many debt securities. These securities are generally valued at fair value on the basis of valuations provided by an independent pricing service approved by the fund's Trustees or a dealer selected by Putnam Management. Such services or dealers determine valuations for normal institutional-size trading units of such securities using information with respect to transactions in the bond being valued, market transactions for comparable securities and various relationships, generally recognized by institutional traders, between securities. To the extent a pricing service or dealer is unable to value a security or provides a valuation which Putnam Management does not believe accurately reflects the security's fair value, the security will be valued at fair value by Putnam Management.

The fund translates prices for its investments quoted in foreign currencies into U.S. dollars at current exchange rates, which are generally determined as of 3:00 p.m. Eastern time each day the NYSE is open. As a result, changes in the value of those currencies in relation to the U.S. dollar may affect the fund's NAV. Because foreign markets may be open at different times than the NYSE, the value of the fund's shares may change on days when shareholders are not able to buy or sell them. If events materially affecting the values of the fund's foreign fixed-income investments occur between the close of foreign markets and the close of regular trading on the NYSE, these investments will be valued at their fair value. As noted above, the value determined for an investment using the fund's fair value pricing procedures may differ from recent market prices for the investment.

Distribution plan and payments to dealers

The Trust has adopted a Distribution Plan with respect to class IB shares to compensate Putnam Retail Management for services provided and expenses incurred by it as principal underwriter of the class IB shares, including the payments to insurance companies and their affiliated dealers mentioned below. The plan provides for payments by the fund to Putnam Retail Management at the annual rate (expressed as a percentage of average net assets) of up to 0.35% on class IB shares. The Trustees currently limit payments on class IB shares to 0.25% of average net assets. Because these fees are paid out of the fund's assets on an ongoing basis, over time these fees will increase the cost of your investment and may cost you more than paying other types of sales charges.

Putnam Retail Management compensates insurance companies (or affiliated broker-dealers) whose separate accounts invest in the Trust through class IB shares for providing services to their contract holders investing in the Trust.

Putnam Retail Management makes quarterly payments to dealers at the annual rate of up to 0.25% of the average net asset value of class IB shares.

Putnam Retail Management may suspend or modify its payments to dealers. The payments are also subject to the continuation of the Distribution Plan, the terms of service agreements between dealers and Putnam Retail Management, and any applicable limits imposed by the Financial Industry Regulatory Authority (FINRA).

In addition to the payments described above with respect to class IB shares, Putnam Retail Management and its affiliates also pay additional compensation to selected insurance companies (or affiliated broker-dealers) to whom shares of the fund are offered ("Record Owners") and to dealers that sell variable insurance products ("dealers") in recognition of their marketing and/or administrative services support. These payments may create an incentive for a Record Owner firm, dealer firm or their representatives to recommend or offer shares of the fund or other Putnam funds, or insurance products for which the fund serves as an underlying investment, to its customers. These additional payments are made by Putnam Retail Management and its affiliates and do not increase the amounts paid by you or the fund as shown under the heading *Fund summary — Fees and expenses* at the front of this prospectus.

These payments to Record Owners and dealers by Putnam Retail Management and its affiliates are generally based on one or more of the following factors: average net assets of the fund attributable to that Record Owner or dealer, sales or net sales of the fund attributable to that Record Owner or dealer, or on the basis of a negotiated lump sum payment for services provided. Payments made by Putnam Retail Management and its affiliates for marketing and/or administrative support services to any one Record Owner or dealer are not expected, with certain limited exceptions, to exceed 0.25% of the average assets of the fund attributable to that Record Owner or dealer on an annual basis. These payments are made for marketing and/or administrative support services provided by Record Owners and dealers, including business planning assistance, educating dealer personnel about the fund and shareholder financial planning needs, placement on the dealer's preferred or recommended fund list, access to sales meetings, sales representatives and management representatives of the dealer and administrative services performed by the Record Owner or dealer. Putnam Retail Management and its affiliates may make other payments (including payments in connection with educational seminars or conferences) or allow other promotional incentives to Record Owners and

dealers to the extent permitted by SEC and National Association of Security Dealers, Inc. (as adopted by FINRA) rules and by other applicable laws and regulations.

You can find a list of all Record Owners and dealers to which Putnam made marketing and/or administrative support services payments in 2009 in the SAI, which is on file with the SEC and is also available on Putnam's website at putnam.com. You can also find other details in the SAI about the payments made by Putnam Retail Management and its affiliates and the services provided by your Record Owner or dealer. In addition, you can ask your Record Owner or dealer for information about any payments it receives from Putnam Retail Management and its affiliates and any services provided by your Record Owner or dealer.

Policy on excessive short-term trading

• **Risks of excessive short-term trading.** The expected tax advantages associated with the insurance products that invest in the fund (such as tax deferral for gains realized from exchanges among the fund and other funds of the Trust) may make the fund more attractive to excessive short-term traders, although other aspects of these products (such as the penalty tax on some withdrawals) may discourage short-term trading. Excessive short-term trading activity may reduce the fund's performance and harm all fund shareholders by interfering with portfolio management, increasing the fund's expenses and diluting the fund's net asset value. Depending on the size and frequency of short-term trades in the fund's shares, the fund may experience increased cash volatility, which could require the fund to maintain undesirably large cash positions or buy or sell portfolio securities it would not have bought or sold otherwise. The need to execute additional portfolio transactions due to these cash flows may also increase the fund's brokerage and administrative costs.

Because the fund invests in foreign securities, its performance may be adversely impacted and the interests of longer-term shareholders may be diluted as a result of time-zone arbitrage, a short-term trading practice that seeks to exploit changes in the value of the fund's investments that result from events occurring after the close of the foreign markets on which the investments trade, but prior to the later close of trading on the NYSE, the time as of which the fund determines its net asset value. If an arbitrageur is successful, he or she may dilute the interests of other shareholders by trading shares at prices that do not fully reflect their fair value.

Because the fund invests in securities that may trade infrequently or may be more difficult to value, such as lower-rated bonds, it may be susceptible to trading by short-term traders who seek to exploit perceived price inefficiencies in the fund's investments. In addition, the market for lower-rated bonds may at times show "market momentum," in which positive or negative performance may continue from one day to the next

for reasons unrelated to the fundamentals of the issuer. Short-term traders may seek to capture this momentum by trading frequently in the fund's shares, which will reduce the fund's performance and may dilute the interests of other shareholders. Because lower-rated debt may be less liquid than higher-rated debt, the fund may also be unable to buy or sell these securities at desirable prices when the need arises (for example, in response to volatile cash flows caused by short-term trading). Similar risks may apply if the fund holds other types of less liquid securities.

• **Fund policies and limitations.** Putnam Management and the fund's Trustees have adopted policies and procedures intended to discourage excessive short-term trading. The fund seeks to discourage excessive short-term trading by using fair value pricing procedures to value investments under some circumstances. In addition, Putnam Management monitors aggregate cash flows in each insurance company separate account that invests in the fund. If high cash flows relative to the size of the account or other information indicate that excessive short-term trading may be taking place in a particular separate account, Putnam Management will contact the insurance company that maintains accounts for the underlying contract holders and seek to have the insurance company enforce the separate account's policies on excessive short-term trading. As noted below, each insurance company's policies on excessive short-term trading will vary, and some insurance companies may not have adopted specific policies on excessive short-term trading.

As noted above, the fund's shareholders are separate accounts sponsored by various insurance companies. Because Putnam Management currently does not have comprehensive access to trading records of individual contract holders, it is difficult (and in some cases impossible) for Putnam Management to determine if a particular contract holder is engaging in excessive short-term trading. In certain circumstances, there currently are also operational or technological constraints on Putnam Management's ability to monitor trading activity. In addition, even in circumstances when Putnam Management has access to sufficient information to permit a review of trading, its detection methods may not capture all excessive short-term trading.

As a result of these limitations, the fund's ability to monitor and deter excessive short-term trading ultimately depends on the capabilities, policies and cooperation of the insurance companies that sponsor the separate accounts. Some of the separate accounts have adopted transfer fees, limits on exchange activity, or other measures to attempt to address the potential for excessive short-term trading, while other separate accounts currently have not. For more information about any measures applicable to your investment, please see the prospectus of the separate account of the specific insurance product that accompanies this prospectus. The measures used by Putnam Management or a separate account may or may not

be effective in deterring excessive short-term trading. In addition, the terms of the particular insurance contract may also limit the ability of the insurance company to address excessive short-term trading. As a result, the fund can give no assurances that market timing and excessive short-term trading will not occur in the fund.

Fund distributions and taxes

The fund will normally distribute any net investment income and any net realized capital gains at least annually. Distributions will be made by reinvestment of distributions in additional shares of the fund, unless an election is made on behalf of a separate account to receive some or all of the distributions in cash.

Distributions are reinvested without a sales charge, using the net asset value determined on the ex dividend date. Distributions on each share are determined in the same manner and are paid in the same amount, regardless of class, except for such differences as are attributable to differential class expenses.

Generally, owners of variable annuity and variable life insurance contracts are not taxed currently on income or gains realized with respect to such contracts. However, some distributions from such contracts may be taxable at ordinary income tax rates. In addition, distributions made to an owner who is younger than 59 ½ may be subject to a 10% penalty tax. Investors should ask their own tax advisors for more information on their own tax situation, including possible foreign, state or local taxes.

In order for investors to receive the favorable tax treatment available to holders of variable annuity and variable life insurance contracts, the separate accounts underlying such contracts, as well as the funds in which such accounts invest, must meet certain diversification requirements. The fund intends to comply with these requirements. If the fund does not meet such requirements, income allocable to the contracts would be taxable currently to the holders of such contracts. In addition, if the Internal Revenue Service finds an impermissible level of “investor control” over the investment options underlying variable annuity or variable life insurance contracts, the advantageous tax treatment provided with respect to insurance company separate accounts under the Internal Revenue Code of 1986, as amended, will no longer be available. Please see the SAI for further discussion.

The fund intends to qualify as a “regulated investment company” for federal income tax purposes and to meet all other requirements necessary for it to be relieved of federal income taxes on income and gains it distributes to the separate accounts. For information concerning federal income tax consequences for the holders of variable annuity contracts and variable life insurance policies, contract holders should consult the prospectus of the applicable separate account.

The fund’s investments in certain debt obligations may cause the fund to recognize taxable income in excess of the cash generated by such obligations. Thus, the fund could be required at times to liquidate other investments in order to satisfy its distribution requirements.

The fund’s investments in foreign securities, if any, may be subject to foreign withholding taxes. In that case, the fund’s return on those investments would be decreased. Shareholders generally will not be entitled to claim a credit or deduction with respect to these foreign taxes. In addition, the fund’s investment in foreign securities or foreign currencies may increase or accelerate the fund’s recognition of ordinary income and may affect the timing or amount of the fund’s distributions.

The fund’s use of derivatives, if any, may affect the amount and timing of distributions to shareholders, potentially requiring the fund to liquidate other investments in order to satisfy its distribution requirements.

The foregoing discussion is based on the assumption that the investors in the fund will be insurance company separate accounts. For further information, please see Taxes in the SAI.

Financial highlights

The financial highlights tables are intended to help you understand the fund’s recent financial performance. Certain information reflects financial results for a single fund share. The total returns represent the rate that an investor would have earned or lost on an investment in the fund, assuming reinvestment of all dividends and distributions. Total returns and expense ratios do not reflect insurance-related charges or expenses; if these charges and expenses were reflected, performance would be lower and expenses would be higher. This information has been derived from the fund’s financial statements, which have been audited by PricewaterhouseCoopers LLP. Its report and the fund’s financial statements are included in the fund’s annual report to shareholders, which is available upon request.

Financial highlights (For a common share outstanding throughout the period)

Period ended	INVESTMENT OPERATIONS:				LESS DISTRIBUTIONS:				RATIOS AND SUPPLEMENTAL DATA:					
	Net asset value, beginning of period	Net investment income (loss) ^a	Net realized and unrealized gain (loss) on investments	Total from investment operations	From net investment income	Total distributions	Non-recurring reimbursements	Net asset value, end of period	Total return at net asset value (%) ^{b,c}	Net assets, end of period (in thousands)	Ratio of expenses to average net assets (%) ^{b,d,e}	Ratio of expenses to average net assets, excluding interest expense (%) ^{b,d,e}	Ratio of net investment income (loss) to average net assets (%) ^d	Portfolio turnover (%) ^f
Putnam VT Diversified Income Fund (Class IA)														
12/31/09	\$5.72	.61	2.29	2.90	(.51)	(.51)	—	\$8.11	54.83	\$167,996	.77 ⁱ	.73	9.07	167.77
12/31/08	8.81	.47	(3.07)	(2.60)	(.49)	(.49)	— ^{g,h}	5.72	(31.07)	127,770	.74	.74	6.19	198.09
12/31/07	8.89	.46	(.09)	.37	(.45)	(.45)	—	8.81	4.31	248,629	.75	.75	5.25	78.65
12/31/06	8.86	.44	.11	.55	(.52)	(.52)	—	8.89	6.60	291,212	.76	.76	5.12	87.14
12/31/05	9.27	.44	(.16)	.28	(.69)	(.69)	—	8.86	3.28	348,430	.79	.79	4.96	115.07
Putnam VT Diversified Income Fund (Class IB)														
12/31/09	\$5.68	.61	2.30	2.91	(.49)	(.49)	—	\$8.10	55.35	\$348,898	1.02 ⁱ	.98	8.95	167.77
12/31/08	8.70	.43	(2.98)	(2.55)	(.47)	(.47)	— ^{g,h}	5.68	(30.82)	173,632	.99	.99	5.71	198.09
12/31/07	8.78	.43	(.08)	.35	(.43)	(.43)	—	8.70	4.13	225,160	1.00	1.00	5.02	78.65
12/31/06	8.76	.42	.10	.52	(.50)	(.50)	—	8.78	6.29	188,602	1.01	1.01	4.86	87.14
12/31/05	9.17	.41	(.15)	.26	(.67)	(.67)	—	8.76	3.05	160,295	1.04	1.04	4.70	115.07

^a Per share net investment income (loss) has been determined on the basis of the weighted average number of shares outstanding during the period.

^b The charges and expenses at the insurance company separate account level are not reflected.

^c Total return assumes dividend reinvestment.

^d Reflects an involuntary contractual expense limitation in effect during the period. For periods prior to December 31, 2009, certain fund expenses were waived in connection with the fund's investment in Putnam Prime Money Market Fund. As a result of such limitation and/or waivers, the expenses of each class reflect a reduction of the following amounts:

	Percentage of average net assets
12/31/09	0.13%
12/31/08	0.13
12/31/07	0.08
12/31/06	0.09
12/31/05	0.03

^e Includes amounts paid through expense offset arrangements.

^f Portfolio turnover excludes dollar roll transactions.

^g Amount represents less than \$0.01 per share.

^h Reflects a non-recurring reimbursal from Putnam Management related to restitution payments in connection with a distribution plan approved by the Securities and Exchange Commission (the "SEC") which amounted to less than \$0.01 per share based on the weighted average number of shares outstanding for the year ended December 31, 2008.

ⁱ Includes interest accrued in connection with certain terminated derivatives contracts, which amounted to 0.04% of average net assets as of December 31, 2009.

For more information about Putnam VT Diversified Income Fund

The annual and semi-annual reports to shareholders, and the Trust's statement of additional information (SAI), include additional information about the fund. The SAI, and the independent registered public accounting firm's report and the financial statements included in the Trust's most recent annual report to fund shareholders, are incorporated by reference into this prospectus, which means they are part of this prospectus for legal purposes. The Trust's annual report discusses the market conditions and investment strategies that significantly affected the fund's performance during the fund's last fiscal year. You may get free copies of these materials, request other information about any Putnam fund, or make shareholder inquiries, by contacting your financial representative, by visiting Putnam's website at putnam.com/individual, or by calling Putnam toll-free at 1-800-225-1581.

You may review and copy information about the fund, including the Trust's SAI, at the Securities and Exchange Commission's Public Reference Room in Washington, D.C. You may call the Commission at 1-202-551-8090 for information about the operation of the Public Reference Room. You may also access reports and other information about the fund on the EDGAR Database on the Commission's website at <http://www.sec.gov>. You may get copies of this information, with payment of a duplication fee, by electronic request at the following E-mail address: publicinfo@sec.gov, or by writing the Commission's Public Reference Section, Washington, D.C. 20549-1520. You may need to refer to the Trust's file number.

Putnam Investments
One Post Office Square
Boston, MA 02109
1-800-225-1581

Address correspondence to
Putnam Investor Services
P.O. Box 8383
Boston, MA 02266-8383

putnam.com