MCP SERVER | NO CODE | CLOUD HOSTED

Dividend Discount Model MCP for AI Agents

Calculating Intrinsic Equity Value and Stock Valuation

The Dividend Discount Model MCP calculates a stock's intrinsic equity value using industry-standard methods like Gordon Growth and Two-Stage DDM. It helps analysts determine if current market prices over or understate a company's true worth by calculating required returns and projecting future dividend yields.

A+ Quality Score 100/100

ddm | gordon-growth | capm | equity-valuation | intrinsic-value

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vinkius.com/mcp/dividend-discount-model

SCAN TO VIEW

The connectivity layer between AI and the world's software.

Vinkius sits between AI and every application. All communication passes through Vinkius Cloud via the Model Context Protocol (MCP) — with governance, observability, and security at every layer.

Your AI Connections Run Through Vinkius Cloud

The world's largest managed MCP catalog

Vinkius is the connectivity layer where AI connects to the software your business already runs. We handle the hosting, the security, the credentials, the uptime — you get agents that actually do things.

We operate the world's largest managed MCP catalog. Major SaaS platforms, CRMs, databases, and cloud providers — running, monitored, production-ready. This MCP server is hosted and maintained by the Vinkius Cloud for AI Agents.

> *The agent doesn't manage credentials, doesn't manage uptime, doesn't manage security. Vinkius does.*
>
> — Architecture principle

Four Pillars of the Vinkius Runtime

01 — Security by design

Credentials stay encrypted at rest via AES-256. The AI agent never touches raw keys — they're injected into a sandboxed V8 isolate at runtime. Actions are logged, and connections have an emergency kill switch.

02 — Built on MCP Fusion

This MCP server was built with **MCP Fusion**, the open-source framework (Apache 2.0) that powers the entire Vinkius catalog. Schema-as-firewall strips undeclared fields, compiled PII redaction runs at zero overhead, and cryptographic lockfiles produce git-diffable audit trails.

03 — Deterministic observability

Eight immutable metrics per endpoint: request volume, p95 latency, error rate, active connections, cost attribution. A live payload feed logs every tool call with mutation detection.

04 — Autonomous operations

Servers are deployed, monitored, and patched autonomously. New capabilities and security patches ship weekly. Zero-downtime deployments ensure continuous availability across all managed MCP servers.

AES-256	Ed25519	24h TTL	V8 Isolate
Encryption at rest	PKI vault signatures	Ephemeral session keys	Sandboxed execution

One Token. Instant Access.

Every MCP server on Vinkius is accessed through a **Connection Token**. Tokens are generated in the cloud dashboard and produce a unique MCP endpoint URL. Paste this URL into any MCP-compatible client — no SDK required.

A single token can serve **multiple AI clients simultaneously**, or you can issue separate tokens per client for granular access control. Each token tracks its own request count, last activity timestamp, and can be individually enabled or revoked.

MCP ENDPOINT

```
https://edge.vinkius.com/{token}/mcp
```

Claude · Cursor · VS Code · Windsurf · Grok · Gemini

Security Is the Architecture

Security in Vinkius is not a feature — it's the foundation of the runtime. The gateway enforces multiple independent protection layers between AI agents and third-party APIs.

01 — Ed25519 PKI Vault

Every workspace has an Ed25519 Master Key. Session keys are generated ephemerally (24h TTL) and signed by the Master Key. Credentials never leave the vault boundary.

02 — V8 Isolate Sandboxing

Tool code runs inside isolated-vm V8 isolates with 64 MB memory caps and per-request timeouts. No filesystem access, no network access except through the SSRF-guarded fetch bridge.

03 — SSRF Guard

All outbound HTTP requests are DNS-resolved and validated before execution. Private IP ranges (10.x, 172.16-31.x, 192.168.x, AWS metadata 169.254.x) are blocked at the network layer.

04 — DLP & PII Redaction

A ResponseGuard pipeline intercepts every tool response. Configurable redaction patterns strip sensitive fields (emails, SSNs, card numbers) before data reaches the AI agent.

05 — Cryptographic Audit Trail

Every request is signed into a SHA-256 hash chain with Ed25519 signatures. Events form a tamper-proof, SIEM-exportable forensic record.

06 — Honeytoken Trap System

Phantom credentials are injected into isolated environments. If a honeytoken is used outside Vinkius infrastructure, the server is quarantined instantly.

Emergency Kill Switch

EU AI Act Art. 14(1) Compliant

The kill switch is an **emergency halt** mechanism — not a simple toggle. When triggered, it executes three actions atomically:

01 — Server deactivated

The MCP server is immediately taken offline across the entire cluster.

02 — All tokens revoked

Every connection token is invalidated. Total lockout — reconnection blocked until new tokens are issued.

03 — WebSocket connections killed

Active connections terminated via Redis pubsub broadcast. Propagates to every runtime node in the cluster.

Full Visibility. Zero Guesswork.

The Vinkius cloud dashboard includes a full MCP Governance suite — real-time analytics and security controls for production AI operations.

Control Plane

KPI dashboard with request volume, latency, success rate, token consumption, and AI-generated operational briefings.

Agent Activity

Which AI clients are connecting, how often, and what they're doing — real-time session tracking.

FinOps

Cost tracking per tool, payload compression savings, budget optimization signals, and consumption trends.

Tool Health

Slowest and most error-prone tools, with actionable root-cause insights and performance baselines.

Firewall & DLP

PII redaction activity, sensitive data protection counters, and security event timeline.

Incident Log

Error trends, failure rates, status-code breakdowns, and forensic audit trail access.

> Get started at **cloud.vinkius.com** — connect your AI agent in under 60 seconds.

Dividend Discount Model MCP

3 tools available
Cloud-hosted on Vinkius

Figuring out if a stock is truly valuable takes more than just looking at the ticker price; it requires deep modeling of future cash flows. This MCP provides that professional valuation engine, letting your AI client run complex financial analyses you usually confine to massive spreadsheets. It handles everything from determining the required rate of return using the CAPM framework to projecting dividends based on growth assumptions. You feed the inputs—dividend payouts and growth rates—and this system calculates a precise intrinsic value for comparison. Because Vinkius hosts all these specialized tools in one place, you don't have to connect separate valuation APIs; your agent handles the entire process from start to finish, giving you clear, model-driven equity valuations ready for reports.

Core Capabilities

01 — Projecting Stock Value

Calculates a stock's estimated fair market price based on projected dividend growth rates.

02 — Determining Required Return

Uses the Capital Asset Pricing Model (CAPM) framework to figure out what return an investment needs to achieve to justify its risk.

03 — Assessing Market Mispricing

Compares a stock's current market price directly against its calculated intrinsic value, flagging potential valuation gaps.

One Click on Vinkius — From Prompt to Execution

Available at **vinkius.com/mcp/dividend-discount-model** — connect your AI agent in three steps.

01 First, your agent uses the CAPM framework to determine the required rate of return (Cost of Equity) for the investment.

02 Next, it projects future dividend payouts and growth using established models to calculate a theoretical intrinsic value.

03 Finally, it compares that calculated intrinsic value against the stock's actual current market price, giving you an immediate valuation status.

The bottom line is: instead of manually crunching numbers across multiple tabs, your AI client runs the full valuation workflow and tells you exactly where a stock sits relative to its theoretical worth.

Built For

Any professional who has spent too much time wrestling with Excel models or running due diligence on equity investments needs this. If your job involves recommending investment actions, stop clicking and start querying.

Financial Analyst

Determines if a company's current stock price is justified by its historical dividend payouts and projected growth.

Investment Banker

Creates valuation reports for clients, comparing market pricing against intrinsic value using standardized models.

Portfolio Manager

Screens large sets of stocks to identify undervalued assets that meet specific growth and risk criteria before making a purchase recommendation.

What Changes When You Connect

01 Determine a stock's true worth without complex spreadsheets. Use the `calculate_intrinsic_value` tool to project fair market prices based on projected dividend growth.

02 Figure out what return you actually need. The `estimate_cost_of_equity` tool uses CAPM to set your required rate of return, factoring in risk and market premiums.

03 Instantly spot overvalued or undervalued stocks. Use the `evaluate_valuation_gap` tool to compare today's price against calculated intrinsic value.

04 Standardize your analysis. Get consistent valuation reports using industry-standard DDM models, regardless of how complex the underlying financials are.

05 Speed up due diligence. Instead of manually running three different calculations, your agent handles the full workflow in one prompt.

Real-World Applications

Identifying Undervalued Buy Candidates

A portfolio manager wants to screen for deep value. They ask their agent to first `estimate_cost_of_equity` using a target risk profile, then use that rate to calculate the intrinsic value of 20 stocks with varying dividend histories, and finally use `evaluate_valuation_gap` to generate a prioritized buy list.

Pitching an Acquisition Target

An investment banker needs to justify buying a target company. They ask their agent to calculate the intrinsic value of the target using its projected dividend growth, creating a solid, data-backed argument for valuation during client meetings.

Reviewing Quarterly Performance

A financial analyst needs to check if a stock's recent price spike is justified. They prompt their agent with the current market price and dividend history, which uses `evaluate_valuation_gap` to give an immediate 'overpriced' or 'underpriced' verdict.

Modeling Long-Term Growth Scenarios

A private investor wants to model a stock assuming different long-term growth rates. They instruct their agent to run `calculate_intrinsic_value` under three scenarios (low, medium, high growth) to understand the range of potential equity worth.

Patterns to Avoid

Using only historical data

✗ AVOID

Assuming a stock's value based only on its past dividend payouts without factoring in future growth or required returns.

✓ INSTEAD

Always use the MCP to project forward. First, determine the necessary return using `estimate_cost_of_equity`, then run `calculate_intrinsic_value` with projected long-term growth assumptions.

Ignoring market comparison

✗ AVOID

Calculating a precise intrinsic value but failing to compare it to what the stock is actually trading at today.

✓ INSTEAD

After getting your calculated worth, immediately use `evaluate_valuation_gap`. This tool tells you if the market agrees with your model.

Using generic valuation metrics

✗ AVOID

Relying on general ratios like P/E without considering the specific risk profile or growth stage of the company.

✓ INSTEAD

Start by using `estimate_cost_of_equity` to ground your analysis in a scientifically calculated required rate of return, making your valuation much more rigorous.

The Right Fit

Use this MCP if you need model-driven evidence for equity valuations. This is essential when you are comparing theoretical intrinsic worth against actual market prices, or when you must factor in the cost of capital to set a proper hurdle rate. Don't use it if your goal is simply to track historical price movements; those charts tell a different story. If you only have raw numbers and no growth assumptions, you need a simpler calculation tool instead of running the full DDM workflow.

Dividend Discount Model MCP for AI Agents: Solving Intrinsic Value Calculation Pain

Right now, determining a stock's true value is brutal. You start with spreadsheets, manually inputting historical dividends and growth rates into various models like the Gordon Growth model or two-stage projections. Then you have to run that through a secondary sheet to estimate the cost of capital using CAPM just to set your hurdle rate. It takes hours of copy-pasting between tabs and risking a formula error with every single calculation.

With this MCP, the process becomes conversational. You tell your agent the inputs—the dividends and growth assumptions—and it executes the complex `calculate_intrinsic_value` function instantly. What you get is a clean, accurate intrinsic equity value without touching a spreadsheet.

Dividend Discount Model MCP for AI Agents: Improving Valuation Gap Analysis

The biggest pain point after calculating the intrinsic worth is knowing what to do with that number. You calculate the perfect value, but then you have to manually check if the stock price matches up. This means comparing your output against multiple sources of market data and deciding if the discrepancy matters.

This MCP solves that by running `evaluate_valuation_gap`. It doesn't just give you two numbers; it tells you exactly where the stock is relative to its theoretical value, giving you an immediate 'undervalued,' 'overvalued,' or 'fairly priced' status.

Dividend Discount Model: 3 Tools for Equity Valuation

Use these tools to calculate a stock's theoretical fair market price, determine the required cost of equity, or compare current pricing to its true worth.

#	TOOL	DESCRIPTION
01	`calculate_intrinsic_value`	Calculates the estimated fair market price of a stock using projected dividend growth figures.
02	`estimate_cost_of_equity`	Determines the required rate of return needed for an investment using the CAPM framework.
03	`evaluate_valuation_gap`	Compares a stock's current market price against its calculated intrinsic value to spot mispricing.

See It in Action

Real prompts you can use once this MCP is connected to your AI agent through Vinkius Cloud.

U What's the estimated intrinsic value for a tech stock that paid $1.50 last year and is expected to grow dividends by 6% per year? Assume a cost of equity of 9%.

Valuation Summary:

- **Model Used:** Two-Stage DDM
- **Required Cost of Equity (CAPM):** 9.0%
- **Estimated Intrinsic Value:** $52.15

The stock appears to be trading at a discount relative to its projected cash flow.

U Compare the current market price ($85) against the intrinsic value using these inputs: 3% risk-free rate, 1.5 beta, and 6% equity risk premium.

Valuation Gap Analysis

METRIC	VALUE
Current Market Price	$85.00
Calculated Intrinsic Value	$92.10
Status	**Undervalued**

The stock has a clear valuation gap, suggesting potential upside based on current growth projections.

U Estimate the required rate of return for an investment in clean energy stocks given a 2% risk-free rate, beta of 1.3, and a 5% equity risk premium.

Cost of Equity Calculation (CAPM)

- **Risk-Free Rate:** 2.0%
- **Beta:** 1.3
- **Equity Risk Premium:** 5.0%

Calculated Cost of Equity: 9.4%

You'll need a minimum return of 9.4% to justify the risk taken in this sector.

Frequently Asked Questions

01 **How do I use Dividend Discount Model MCP for AI Agents if I only know the current price and nothing else?**

You first need to provide growth rate assumptions. The system needs inputs like expected dividend increases or a cost of equity percentage to run any calculation. Once you have those fundamentals, it can calculate your intrinsic value.

02 **Can the Dividend Discount Model MCP for AI Agents tell me if I should buy or sell a stock?**

It provides the data needed for that decision. By using `evaluate_valuation_gap`, you get an 'undervalued' status, which suggests buying potential, but always combine this with your own research.

03 **Does Dividend Discount Model MCP for AI Agents require me to be a financial analyst?**

No. While the math is complex, you interact only via natural language prompts. Your agent handles the technical steps, so you just need to provide the necessary inputs.

04 **What kind of growth data does Dividend Discount Model MCP for AI Agents accept?**

It accepts projected dividend payouts and a defined long-term growth percentage (the 'g' in DDM). The higher the accuracy of your input assumptions, the more reliable the intrinsic value will be.

05 **Is Dividend Discount Model MCP for AI Agents better than standard valuation models?**

It's a specialized tool focused on dividend-paying stocks. It uses established academic finance models (like CAPM) to give you a specific, standardized view of equity worth.

Go Live in 60 Seconds

Get your connection token from **cloud.vinkius.com**, then paste the endpoint URL into any MCP-compatible client.

YOUR MCP ENDPOINT

```
https://edge.vinkius.com/[TOKEN]/mcp
```

CLIENT	WHERE TO CONFIGURE
Claude AI	Profile → Customize → Connectors → "+" → Add custom connector → Paste endpoint
Cursor	Settings → Features → MCP Servers → "+ Add New MCP Server" → Type: SSE → Paste endpoint
VS Code	Ctrl/Cmd+Shift+P → "MCP: Add Server" → add `"dividend-discount-model": { "url": "…" }`
Windsurf	MCP Settings → `mcp_settings.json` → Add endpoint URL
ChatGPT	Settings → Tools & plugins → Add MCP server → Paste endpoint
Gemini	Extensions → Add MCP Server → Paste endpoint URL

ASK AN AI ABOUT THIS

Let your preferred AI explain this MCP server

- Ask ChatGPT
- Ask Claude
- Ask Perplexity
- Ask Gemini
- Ask Grok

READY TO CONNECT

Dividend Discount Model is live on Vinkius Cloud.

Get your connection token, paste it into your AI agent, and start building. No SDK. No deployment. Just results.

Start at cloud.vinkius.com →

vinkius.com · support@vinkius.com

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