INVESTMENT RISK

GOVERNANCE

Managing your core business risk
ABOUT US

CheckRisk is a trusted provider of risk services covering over $70bn of risk assets globally. CheckRisk’s team of investment professionals has decades of combined experience within asset management, trading and qualitative/quantitative modelling disciplines. Our consulting services, risk models and commentaries provide a high level of value to any firm that is interested in having an independent view to aid decision making, formulating risk strategies, to put in place risk management systems or manage assets. Our work with the University of Bath, School of Management, and University of Bristol Systems Engineering Department means that investors wishing to understand risk have the backing of top level academic institutions and the pragmatic investment risk skills of CheckRisk’s team.

OUR APPROACH

Our approach to risk is innovative, forward-looking and multi-dimensional. We think of risk in the widest possible sense: from the macro global economy, down to the micro securities level, using both quantitative and qualitative analysis.

Legacy systems such as Value at Risk (VaR) are known to have failings and have not served the industry well. We aim to fill that gap.

Most investors spend their time chasing the thing they can’t control: returns. They spend little time thinking about the things they can control that make a difference: risk, cost and time.

The question CheckRisk is really trying to answer is: are you being paid to take risk?

Computers and new theories have transformed the way in which we can try and answer that question. We bring together the latest forward-looking methods and translate them into output that is easy to understand.

We recognise that there is no single ‘perfect’ approach and that there will always be a certain amount of irreducible uncertainty: this is why you need to use simulations and different techniques to build resilience. This offers us the best chance of achieving our objectives.

However, we should not leave it to computers alone. We believe that the future lies in combining their power with practitioner experience. Working closely with our clients, we have been successful in customizing our risk knowledge to provide specific client solutions.

The cross-fertilisation of the sciences and big data offers us new and exciting insights into how the world works. CheckRisk is at the leading edge of this new frontier.
OUR SERVICES

INVESTMENT RISK GOVERNANCE

We advise professional investors, boards and trustees on one of the most important and least understood risks: investment risk and its proper governance.

We do this by assisting our clients in reviewing their existing investment processes and looking for improvement in areas such as asset allocation, stress-testing and model validation.

RISK PRODUCTS

We help decision makers get a clearer picture on the global economy and financial markets with our risk products.

We have off-the-shelf products and fully customisable systems to suit individual needs.

Our cutting edge products are primarily focused on forecasting financial conditions and reflect the interconnected world we live in.

RISK MANAGEMENT CONSULTANCY

We provide bespoke, cost-efficient risk solutions to assist institutions in managing financial and operational risk.

We partner with our clients to help them deliver specific projects for internal, commercial or marketing purposes.

Our experience and modelling skills are useful in different parts of an organisation and across industries.

STRUCTURED PRODUCTS

CheckRisk creates bespoke structured products for institutional clients. These provide a diversified alternative to traditional asset classes, especially in an environment of low interest rates.

We adopt a multi-strategy approach and seek to create the best possible product. We also provide full ongoing after sales support.
IRG PRACTICE

Investment risk governance (IRG) is the new by-word for efficient, accurate and effective risk monitoring. At its most simple, IRG covers a core business risk and empowers decision-making within a stable framework.

Investment risk is one of the critical business risks for any organisation involved in investment. Investment risk impacts your clients, your shareholders, your trustees or investment board, non-executive directors, directors and employees; and yet investment risk is often one of the last risks to be considered in an organisation.

Risk is both a positive and negative influence on investment returns. The only way to drive those investment returns, in a controlled manner, is to understand risk fully.

CheckRisk’s IRG practice lays out a considered and practical approach to maximise the chance of your investment style performing in line with expectations.

Our practice covers the following key areas:

- Investment risk tolerance, budgeting & appetite
- Investment process review
- Model validation
- Stress-testing
- Multi-factor scenario analysis
- Causality modelling
- Organisation risk tolerance and analysis
- Strategic and Tactical portfolio overlays
- Alert and system breach reporting
- Board and risk team reporting
- ESG establishment & governance
- Regulatory reporting

All of the above may be selected, or individual functions as modular services. Our aim is to ensure that clients have the most up to date and functional investment risk governance in place. With the comfort of knowing CheckRisk is by your side.

CheckRisk’s IRG expertise can make a positive difference to returns, risk control, regulatory reporting and organisational risk culture.

At a time when the risks emanating from the Breaking of Unconventional Monetary Policy (B.U.M.P.) are beginning to be felt through the investment world, it is essential to understand fully the risks surrounding your investments.

CheckRisk’s IRG practice delivers a quantitative approach with specific pragmatic solutions. CheckRisk walks clients through a turn-key solution so that you are in control of risk at all times.

WHO IS IT FOR?

- Pension Funds
- Wealth Managers
- Asset Managers
- Insurers
- Hedge Funds
- Trustees

KEY FEATURES

- Risk framework includes risk tolerance, risk budget, and risk appetite reports
- Communicate risks in a visual language that is easily understood by all of your team
- Risk alerts keep your key people in the loop as risk levels approach predesigned limits. Risk breaches are reported
- Positional awareness is enhanced so that risk opportunities can be exploited and excess risk avoided. CheckRisk works with your organisation to ensure your risk system remains fit for purpose
- Clients who have an established IRG practice have found significant enhancements in organisational risk culture and an improved dialogue with regulatory authorities, as well as better control of returns.
INVESTMENT RISK GOVERNANCE

Since our firm’s inception in 2011, we have been working with trustees, boards of directors, chief risk officers, and investment committees in creating bespoke investment policies and strategies, and providing them with the best practice industry tools to help with ongoing management.

We have worked with both established groups that have the aim of reviewing and improving existing policies and investment strategies, and newer companies that may have little or nothing in place. CheckRisk helps our clients achieve the best outcome for their organisation.

A common mistake of investors is to chase the thing they cannot control, returns. Instead, we recommend focusing on the things they can control. By laying the right foundations, you can ensure a much greater chance of success.

By putting in place appropriate governance systems that can provide some structure, but flexible enough to move with the times, the chances are improved yet further.

Policies that are too onerous to manage on an ongoing basis will not deliver the investment objectives over the longer-term.

Similarly, policies that are too loose may increase the chances of human error or biases that may deliver suboptimal outcomes. The goal is to fit the policies to the people and the size of the organisation.

A key skill of CheckRisk’s is to tailor a governance policy that strikes the right balance between simplicity and detail. This offers the most cost efficient solution while enabling better decision making. Improved returns should follow as a natural consequence.

“can you afford not to fully understand your core business risk?”
DEFINING OBJECTIVES & SUCCESS

One of the first steps we take with clients is ensuring that their existing investment strategy is aligned with their longer-term objectives. It is important to understand the constraints from an operational and investment perspective.

Different members of a team may have differing risk profiles and investment beliefs. We have to establish whether the risk profile of the decision-makers matches the investment strategy and whether this meets the longer-term investment objectives.

Some organisations have fiduciary obligations regarding ethical or socially responsible investments. It is, therefore, important to ensure that an appropriate framework is in place that can accommodate these needs too.

The investible universe of assets has a direct bearing on potential risk and return, and the level of achievable diversification.

The static asset allocation must demonstrate that it can achieve the longer-term objectives, and have sufficient structure that it can act as an investment guidance manual for trustees and fund management. However, it must also incorporate a more dynamic element that can move with the times to take advantage of potential opportunities and innovations.

Operational flexibility and the decision making process of the organisation are the keys in determining an appropriate dynamic management system.

There is little point in establishing tactical asset allocation parameters if they cannot be met in practice.

Unless clear objectives can be established, there is no way to frame decision making and to ascertain whether success is being achieved.

We have found that workshops offer one of the most efficient ways of using time with trustees and boards. CheckRisk can provide the guiding documents and a summary of the pertinent points discussed after such workshops.
We can support our clients with the latest developments in financial technology. CheckRisk has developed several cutting-edge products that shine a light on the economic and investment landscape and enable better decision-making. This is all with the backing of two of the UK’s top universities. As former fiduciaries ourselves, we know what is useful and have aimed to deliver products and services that we would want.

Clients can pick and choose what elements they find useful to suit their budget.

**RISK PARAMETERS**

CheckRisk establishes specific risk tolerance limits, risk budgets and risk appetite statements based on an analysis of an organisation's risk profile.

Use our cutting-edge software designed with the Universities of Bath and Bristol.

The output is tailored to the client and can be compared to industry-wide benchmarks.

Bi-annual reviews of risk parameters are standard.

**WHAT IF & STRESS-TESTING**

CheckRisk’s stress testing and scenario analysis models are forward-looking and use multivariate factor analysis with causality functions.

In simple terms, we can build a risk stress test that matches your investment views that is forward looking and pragmatic. Outputs include exposure analysis and network risks.

Forearmed is forewarned.

**ORGANISATIONAL RISK**

CheckRisk has expertise in organisational risk management. Including system risks, human resource risk, and business flows.

We can provide training and risk briefings if required.

Using advanced network analysis theory, we can map your organisation’s internal communication flows and identify areas of risk and opportunity.

**RISK ALERTS & REPORTING**

Putting a cutting edge risk system in place is one thing. After that, CheckRisk provides an alert system for system breaches, for approaching risks, and most importantly a system for alerting when more risk should be taken.

CRO’s, CIO’s, CEO’s, Investment teams and Boards are kept in the loop on risk and its development within your organisation.

“pick and choose from our tools to suit your budget”
RISK PROFILING

A key part of our review process is to establish the risk of the investment portfolio itself and that of the decision-makers. If the two are misaligned, there may be little hope of achieving the longer-term objectives.

To address this issue, CheckRisk has developed one of the most sophisticated investor risk profiling tools available in conjunction with the Universities of Bath and Bristol Neuroeconomics, Behavioural Finance and Psychology Departments. One paper that discusses the results of this has been published in the FAJ journal and there are further papers in submission. We can use the profiling software to establish a more formal risk appetite framework for the key decision-makers, and ensure that their perception of risk is aligned to that of the portfolio stakeholders.

Following this step, we can go on to create a risk budget for the portfolio as a whole and the individual holdings or asset classes that can provide a stable method of ongoing governance.

PAST, PRESENT & FUTURE

Investors rely on risk analysis for three purposes: measuring past investment risks to help interpret historical performance, forecasting the risks of their current portfolio, and constructing new portfolios to trade off expected return and risk optimally. CheckRisk has considerable expertise in these fields as it is our main business. We can provide meaningful outputs that surpass the industry standard software in tables, charts and other visualizations.

Looking at the past to help us evaluate historical performance is useful from a reporting perspective, but it does not help with ongoing risk management, which for most of our clients tends to be more important. For that we have to analyse the existing portfolio and how it might perform in the future. CheckRisk has the full range of methods to help answer that question with different simulation techniques. By focusing on the factors that help drive risk and return, we can begin to separate luck from skill and provide the foundations that will generate sustainable returns going forwards.

CheckRisk combines a quantitative approach to risk with a qualitative macro risk overlay. Our senior team has all been fiduciaries and “run” investment portfolios. We provide guidance that will seek to strike the right balance between usefulness, cost, simplicity and detail.
OUTPUT EXAMPLES

Here are a few examples of outputs from different models we employ. Please get in touch with us if you would like to know more.

RISK MODELLING

The example below shows the common industry tool: historical value at risk (VaR). As you can see, it understates risk when you need it the most. Real returns breach the model thresholds (orange, red lines) relatively frequently.

This example shows a much better fitting model. It closely resembles the reality, and is a better tool for risk management. CheckRisk can customise and calibrate risk models to suit your portfolio and bring VaR alive.

WHAT IF & STRESS-TESTING

Forward-looking stress-testing is more reliable than expecting history to repeat itself. Below is an example of a Bayesian network visualisation, which groups real world risks. The larger the node, the more important the risk. The arrows show how they are connected.

We can perform highly specified parametric tests, where the scenario conditions are detailed; and non-parametric methods where we use very few assumptions. Below is a filtered historical simulation example that shows a portfolio’s key risks.

Simulation Stress Factors at 95%
BONDS: TERM STRUCTURES & CAUSALITY

We can offer various forecasting techniques to help you understand where bond yields are going. We can complement this with causal techniques that can demonstrate which countries are focusing risk and those which are sensitive to risk spillovers.

NETWORK RISKS

The beauty of complex network visualisations is that they condense a huge amount of information into a simple chart that anyone can understand. We tend to use these illustrations to uncover hidden relationships in a portfolio, or to demonstrate how potential risks can spread through the financial system.
We can provide lots of ways to show you what is driving the risk and returns of your portfolio. We can similarly provide style and factor analysis.
EARLY WARNING RISK SIGNALS

We have several cutting-edge products that can help you understand the investment landscape. The standard reports are perfect for high level board meetings. CIO’s and CRO’s may benefit from the detail of a customised approach.

NOWCASTS & FORECASTS
ARE YOUR RISKS COVERED?

Investment risk is the single most important risk taken by financial firms. The risk touches on reputation, core business profits, client relationships, management fiduciary duties, and regulatory compliance. With a systematic investment risk governance framework these issues can be managed, mitigated and made to work for you instead of against you.

CheckRisk is working with clients to ensure that IRG programs are established and maintained. Call the CheckRisk team for further information.

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