THE TREASURY
Kaitohutohu Kaupapa Rawa

THE TREASURY'S LIVING STANDARDS FRAMEWORK

February 2018

The Treasury has released new material on its Living Standards Framework, in particular a Treasury Paper and related discussion papers that describe the different components and dimensions of intergenerational wellbeing in the Living Standards Framework.

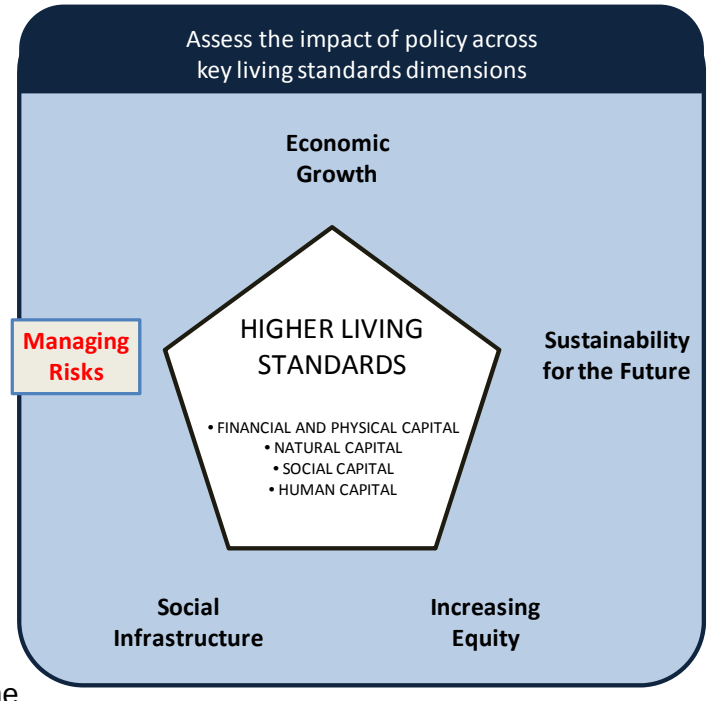
The Treasury continues to make the historical material in this document available to support researchers interested in the development of the Framework since 2012.

Please refer to the current Living Standards Framework material listed at http://www.treasury.govt.nz/abouttreasury/higherlivingstandards

Office of the Chief Economic Adviser
The Treasury

Living Standards: A Short Guide to 'Managing Risks'

Managing risk for higher living standards



Nobody can fully control or predict all the events that happen in the environments in which they operate. It is these uncertain events, overlaid on the particular objectives, which generate risk. Risk is usually characterized by describing both the effects or consequences (costs) and the chance of experiencing those consequences (probabilities). The level of any particular risk can be expressed by weighing up these two considerations.

The definition of risk given in the first international standard on risk management (published in 2009) is "the effect of uncertainty on objectives".

Key idea:

Risk is not inherently bad; achieving objectives will involve some risk.

The idea is not to avoid all risk – but to understand and manage it.

Risk therefore spans uncertain adverse events ***and*** their effect on objectives. So, the "risk" isn't the chance of fire, but the chance that value will be destroyed and/or operations disrupted should a fire occur – if preserving value and continuing service were objectives. In terms of the living standards framework, risk can be assessed against the objective of New Zealanders' access to desired levels of human, social, natural, physical and financial capital.

Some objectives can only be achieved by being willing to accept at least some risk. If risk can be managed effectively, more opportunities may be able to be beneficially exploited or existing opportunities better exploited and hazards avoided.

Key ideas:

- Articulate risk appetite.
- Identify and measure risk.
- Decide how/if to 'treat'.
- Measure and improve.

Managing risks means...

Risk management entails:

- articulating the appetite or tolerance to risk

- identifying and measuring risks to objectives
- deciding whether, how and when to 'treat' those risks in order to improve the availability of desired human, social, natural, physical and financial capital
- measuring the impacts of that treatment, and
- using that knowledge to continue to improve decision-making.

Regarding living standards, it enables policy makers to be better informed about the risks associated with action or inaction, to receive critical input to prioritisation and resource allocation processes, and to target desired levels of resilience. In terms of improving our human, social, natural, physical and financial capital, good risk management is the difference between evidence and knowledge or intuition and luck.

The living standards framework suggests that higher living standards will arise from increasing the freedoms of individuals to enjoy desired lifestyles by accessing different capitals. Risks can be considered against those objectives, as depicted below:

Objective:	Higher Living Standards for New Zealanders			
Method:	Increasing the freedoms of individuals to enjoy desired lifestyles			
Elements:	Physical Capital	Human Capital	Social Capital	Natural Capital
Risks eg,	Earthquakes Floods Eruptions Infrastructure disrepair 'White elephants'	Crime Ill health Skill deficiency	Welfare dependency Economic crises Education failure Civic society failure	Climate Change Biodiversity risks Erosion
Mitigations eg,	Insurance Markets – price signals Regulation	Police Defence Health systems Education system	'Hand-up' policies Macroeconomic policy Financial regulation Regulation	Emissions trading Border protection Regulation

The key dimensions of risk

Risk management involves considering the potential sources of risk:

- to New Zealand as a whole – such as the impact of external economic crises or physical threats like armed conflict, terrorism or bio-security failures
- to particular regions (such as floods) or to particular subgroups of society (such as educational failure)
- to the success of particular policies (such as implementation risks).

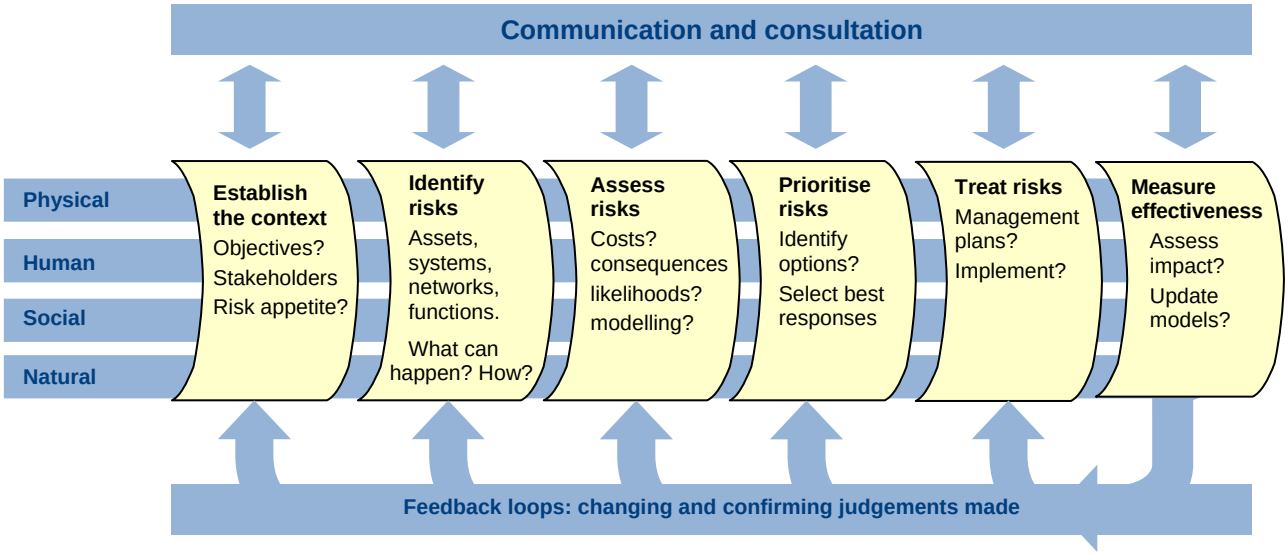
Risks are then categorised by the different management objectives:

Risks can be:

- Exogenous.
- Endogenous (activity related).
- Endogenous (preventable).

- ***Exogenous*** – Externally sourced risks. The risk mitigation objective will focus on reducing the cost (and increasing the resilience) associated with the impact of these risks and connect to strategic development.
- ***Endogenous, activity related*** – Risks arising from activities necessary to achieve objectives. The risk management objective must focus on reducing the likelihood ***and*** the cost of risks. This is a critical factor in operating decision-making.
- ***Endogenous, preventable*** – Because these risks arise from within, and generate no strategic benefits, the risk mitigation objective will seek to avoid or eliminate the risk cost-effectively. Here, risk management occurs through compliance activity.

A framework for risk management



Applying this framework

Establishing the context

Key ideas:

- Define objectives.
- Involve stakeholders.
- Clarify risk appetite/ tolerance.

Objectives:

Start by ***defining*** objectives being sought and identify external and internal factors that may influence success. Remember, it is not possible to consider risk separately from 'risk to objectives'.

Stakeholders:

Incorporating stakeholders and their objectives helps ensure consultation and communication throughout the process, enhancing risk management and reducing uncertainty.

Consider stakeholders along two dimensions:

- their level of importance to the success of the project, process or programme objectives
- their level of support.

Stakeholders high in both dimensions need lots of involvement, those high in only the first dimension need management, and those high only in the second need acknowledgement.

Risk appetite / tolerance:

The amount of risk an organisation is prepared to accept, tolerate, or be exposed to at any point in time. It allows for an appropriate balance between uncontrolled innovation and excessive caution. ***Clarity*** (rather than vague terms) regarding risk appetite guides people on the level of risk permitted, and encourages consistency of approach across an organisation. Risk appetites depend on the nature of the work undertaken and objectives pursued. This is likely to vary across an organisation, but there should be an overarching appetite framework to ensure consistency.

Identifying the risks

Apply a systematic process to understand what could happen, how, when and why. If not, it can lead to a concentration on 'known known' risks and hence miss 'known unknowns' or 'unknown, unknowns'.

Common risk identification methods are:

- ***Objectives-based:*** Any event that may endanger achieving part or all of an objective is a risk.
- ***Scenario-based:*** Scenarios are created as alternative ways to achieve an objective, or an analysis of the interaction of forces, eg, in a market or battle. Any event that triggers an undesired scenario alternative is a risk.
- ***Taxonomy-based:*** The taxonomy is a breakdown of possible risk sources. Based on this and knowledge of best practices, a questionnaire is compiled. The answers reveal risks.
- ***Common-risk checking:*** When known risks are available, each can be checked for application to a particular situation.
- ***Risk charting:*** A combination of the above, this lists resources at risk, threats to those resources, factors which may change the risk and consequences you wish to avoid. Creating a matrix under these headings enables a variety of approaches:
  - begin with resources and consider threats and consequences of each

Common risk identification methods:

- Objectives-based.
- Scenario-based.
- Taxonomy-based.
- Common-risk checking.
- Risk charting.

- start with the threats and examine which resources they would affect, and
- begin with the consequences and determine which combination of threats and resources would bring them about.

Assessing the risks

This entails more than applying a high/low probability, high/low cost matrix, as these are too subjective and simply add ambiguity to uncertainty.

Probabilistic models should be considered (feeding the factors that change risks and costs, into a stochastic model). These factors are supported by evidence, otherwise expert judgements are used. These produce insights into the range of outcomes, help with prioritisation decisions and provide a benchmark against which actual experiences and changing expectations can be measured. This is ***critical*** to feedback loops enabling virtuous circles of improvement and stop management practices atrophying over time.

Prioritising risks

Prioritise risks and deploy a cost benefit analysis to determine what, if any, treatment is required. 'Priority' depends on criteria created when the context was established. The 'type' of risk influences the management strategy and priority. For ***exogenous risks*** mitigation focuses on ensuring that resilience is sufficiently strong. ***Endogenous risks*** require some activity-related risk to be accepted, and mitigation efforts will balance preventative measures and those to improve resilience. For ***preventable risks***, prioritisation should focus on cost-effective preventative measures.

The main options available when prioritising risks are to accept, mitigate or share (transfer) the risk. The order of which will indicate the priority of the risks.

Further options for risk management can include:

- selection processes for programmes, projects or processes – i.e. analysing decisions that create new sources of potential losses to ensure the risk justifies the reward, given the risk appetite
- insurance
- contractual risk transfer – clauses in agreements contracting out of responsibility
- operational risk reduction – management initiatives such as safety procedures, training, investments in operational redundancy
- liquid asset positions – cash to absorb losses
- compliance – dotting the 'i's and crossing the 't's
- legal structures – limited liability and responsibility with autonomy
- activism – advocating changed behaviours by stakeholders to reduce risk.

Further options for managing risks:

- Selection processes.
- Insurance.
- Contractual risk transfer.
- Operational risk reduction.
- Liquid asset position.
- Compliance.
- Legal structures.
- Activism.

If looking to transfer risks away from the public sector, analysts must consider mechanisms and channels that might return the risk to the public sector.

Treat risks

To implement the risk management process you need:

- leadership to support any change agenda, set the tone from the top, and align and co-ordinate strategies, plans and actions
- enough appropriately skilled people to deliver priorities
- sufficiently robust processes to ensure actions are being taken efficiently and effectively
- stakeholders confident that changes are equitable, efficient and effective.

Measuring risks

Risk management is ongoing as new risks emerge and existing risks change. Risks often change because controls and mitigation practices have become inadequate or ineffective. Measurement must be continuous, and mitigation and sharing actions monitored so the appreciation of risks and the levels of those risks are aligned to the risk appetite or tolerance levels.

The value in using and repeating probabilistic models is in answering the question: "How do you know if the approach to risk management is working?" In the absence of updates of a probabilistic model, other tools and measures should be sought to answer this question.

Key idea:

To ensure value, risk must be measured continually and monitoring effectiveness and sharing actions will mean the levels of risk are appropriate.

Communicating risk to stakeholders

Communication of risk can be challenging. Issues arise as decisions about uncertainty may not be based directly on information and risks can be enlarged rather than diminished. Products, processes and programmes can be inappropriately stigmatised and levels of trust reduced. The 'Cardinal Rules', developed by the US Environmental Protection Agency for risk communication, to avoid these pitfalls are:

- Accept and involve the public/other consumers as legitimate partners (eg, stakeholders).
- Plan carefully and evaluate your efforts with a focus on your strengths, weaknesses, opportunities, and threats (SWOT).
- Listen to stakeholders' specific concerns.
- Be honest, frank, and open.
- Coordinate and collaborate with other credible sources.

Key idea:

'Cardinal Rules' of risk communication:

- Accept and involve stakeholders.
- Plan carefully (SWOT).
- Listen.
- Be honest.
- Coordinate and collaborate.
- Meet needs of the media.
- Speak with compassion.

- Meet the needs of the media.
- Speak clearly and with compassion.

Key questions when thinking about managing risk

Effective policy interventions are those that understand risk and manage it. It is therefore important to consider the risks associated with policy decisions and the options for effectively managing it.

Policymakers might want to ask:

- **What is your context**? What are your objectives? Who are your stakeholders? What is their level of importance? What is your risk appetite? Is this consistent across the entire project or programme?
- **How will you know what risks you face?** What is the 'risk' in this context? What is your risk identification method? Have you overlooked any 'known unknowns' or 'unknown unknowns'?
- **How will you assess your risks?** What criteria have you employed to reach this conclusion?
- **Which risks need the most attention?** What are your chosen methods of risks management (i.e. not only accept, mitigate or share, but also from the alternative list)?
- **How will you manage your risks?** How do you plan on implementing your specific risk management approaches? What does the plan include?
- **How do you know your risk management process is working?** Can this be used to feed back into the risk management framework and improve it?
- **How will you keep the key people informed about the risks and their management?** Have you legitimised this by including others, i.e. stakeholders? Have you planned carefully and listened to stakeholder concerns?