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YOU NEVER HAD IT SO GOOD
the parallel importing of DVDs

For a brief period from 1998 to 2001, the parallel importing of DVDs was permitted in New Zealand. Matt Burgess and Lewis Evans saw this 'natural experiment' as a opportunity to examine the benefits and costs of parallel importing.[2] And their conclusion is that the parallel importation of DVDs enhanced the welfare of consumers.

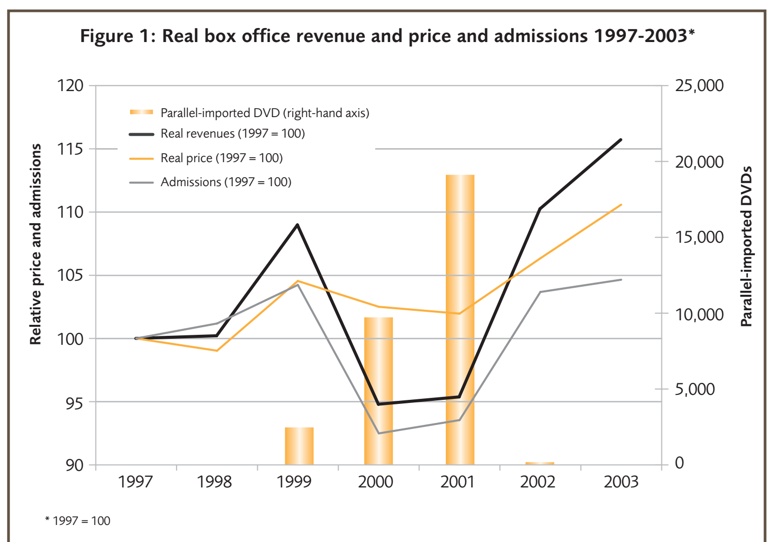
Parallel importing is the importation of legitimately produced goods without the consent of the relevant copyright, trademark, or patent holder (or their agent) in the recipient country. It is attractive because of international differences in the price, associated services, availability, and qualities of goods. Products which have been parallel imported into New Zealand range from car parts and televisions to books and perfume. Prices and, as our recent study shows, quality resulting from bans on parallel importation can be hugely different from what they are when parallel importation is allowed.

Now & then

By the end of the 1990s, New Zealand had had a long-standing and relatively pervasive prohibition of parallel importing. Parallel importation of all types of goods other than motor vehicles was forbidden, and the ban even extended to second- and third-hand goods. This policy was dramatically reversed in May 1998 with the unanticipated announcement and passage of the Copyright (Removal of Prohibition on Parallel Importing) Amendment Bill. The amendment removed all restrictions on parallel importing.

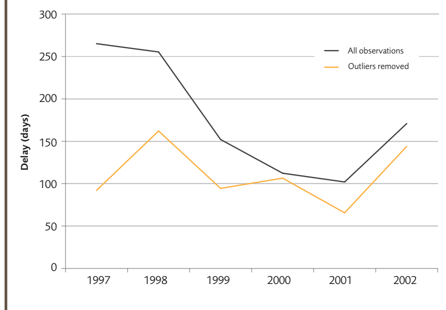
In the period following the amendment, parallel imports began to trickle into the country across a range of industries, including film and video.

Figure 1: Real box office revenue and price and admissions 1997-2003*



* 1997 = 100

Figure 2: Average delay in film release in New Zealand



In mid-1999, small numbers of films on the then-new DVD media standard were being parallel imported for rental by video stores.[2] DVDs were being imported from countries (primarily the US) with release dates that were often months in advance of New Zealand dates. In many cases, parallel-imported DVDs were reaching the shelves of video rental stores at the same time, or even before, the New Zealand release of a film in cinemas. By the end of 2001 the flow of parallel-imported DVDs had become a torrent, reducing cinema earnings as consumers substituted viewing at home on DVD for viewing films in cinemas.

Two events put a stop to the parallel importation of DVDs for rental. First, a test case in the High Court resolved some uncertainty in the 1998 amendment. In Video Ezy (New Zealand) Ltd v Roadshow Entertainment (New Zealand) Ltd,[3] the High Court held that Parliament did *not* intend that the scope of the rental rights granted under the Copyright Act 1994 should apply to parallel-imported copies of works protected under New Zealand copyright law. Second, legislation in 2003 formalised a permanent ban on *renting* parallel-imported DVDs, and extended the right of copyright owners to prohibit the parallel importation of motion-picture films, DVDs, VHS videos, and video CDs for sale within nine months of the first international release of a film.

A natural experiment is created by the (approximately) 30-month window in which DVDs were parallel imported. By comparing outcomes before, during, and after this period we can gain some idea of the effects of parallel importing on consumer benefits and overall welfare.

Sum games

The net benefits of parallel importing are the outcome of a trade-off between competition and investment in intellectual property. A prohibition on parallel imports extends intellectual property rights from the traditional monopoly on production to a monopoly on the importation of goods. The incentives for owning (and therefore creating) intellectual property are increased by protection from parallel importing and by a higher associated profit – but at the cost of restricting the consumption level of the goods.

The relationship between intellectual property and welfare may be viewed as a hill. Starting from a point of no rights, welfare is enhanced as intellectual property rights are introduced and strengthened and the output of ideas increases. At some point, welfare peaks – and then it starts to decline as further increases in intellectual property protection lead to small gains in new products and greater losses in amounts consumed.

The question of whether parallel imports should be permitted depends on whether giving (to the owners of intellectual property) protection from parallel importing will shift welfare towards or away from the welfare optimum. In practice, assessment entails estimating each source of change in welfare. It is not generally possible to estimate all effects – but, provided that the main sources of welfare effects are quantified, useful indications of welfare gains can be estimated. In our study of parallel importing, our main simplifying assumption was that the decision of domestic and foreign film studios to invest in a film would not be affected by the intellectual property rights granted to foreign films in a country as tiny as New Zealand.

The DVD experiment is particularly interesting in that the court's finding, and the subsequent legislative amendment, delayed the release of films in New Zealand and raised the cost of DVD formats relative to cinemas. In the absence of parallel importing, the distributors can delay both cinema and DVD releases and so enhance profitability. The ability to delay reduces the cost of the film, provides information about demand for the film in countries where it's initially released, and enables scheduling in relation to other films and holiday periods.

Where a monopolist controls timing, it will generally introduce its service later than is socially desirable. However, films of other distributors may serve as competition that induces earlier release. The effect of DVD parallel importing was to raise competition in the timing and media of release. We expected this to induce earlier release of films (in all formats) as distributors responded to the competition. If consumers valued earlier rather than later viewing, such a change would enhance social welfare.

Judging by results

We found that parallel importing of DVDs for rental and sale caused a significant reduction in cinema earnings. Figure 1 shows that the effect for cinemas was a sharp reduction in revenues: this was caused in part by a reduction in real prices, but mainly by a loss of customers to DVD viewing. This switch of formats represents a welfare gain that arose from consumers being able to choose between formats.

Consumers were substituting DVD for cinema for a very simple reason: parallel imports of legally produced DVDs were arriving in New Zealand before, or at about the same time as, a film in local cinemas. This was because films were being released in New Zealand cinemas three months or more after their overseas release – and so parallel importers exploited the opportunity created by international differences in release dates by purchasing copies of DVDs from overseas wholesalers and importing the DVDs directly into New Zealand.

As we expected, parallel importing also led to a significant *reduction in delay* in New Zealand cinema releases. It was estimated to cause an average 97-day reduction – more than three months. This occurred because film distributors responded to the competition of parallel-imported DVDs by setting the cinema-release date of a film sufficiently in advance of the overseas release of the film on DVD. The reduced delay under parallel importing constituted a major benefit to consumers because they much prefer earlier to later viewing.

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Why MERITS REVIEWS of REGULATORY DECISIONS are a good thing to have

Regulators are not perfect. Their decisions and processes can be in error – and such errors can have large social and economic costs. So there's a need for a mechanism that will correct these errors quickly. As David Round points out, the existence of a merits review process is the sine qua non of a socially optimal regulatory process.

As regulators acquire more control over commercial activity, it is essential that their decisions be transparent and accountable. Allowing firms access to a merits appeal process enhances both transparency and accountability – but no such process is available in New Zealand. Commerce Commission decisions are reviewable by the relevant Minister (who can accept, reject or change the recommendation). This process is, however, neither public nor transparent. The companies involved can make written submissions to the Minister; they cannot argue the issues before an independent appeal body at a formal hearing.

'Judicial' versus 'merits'

A *judicial* review process is available in New Zealand. This should not be confused with, nor be seen as a substitute for, a *merits* review process. The purpose of judicial review is to check for errors of law by regulators. Generally speaking, it does not allow an appeal on the facts and thus cannot correct a wrong decision.

By contrast a merits review body usually 'stands in the shoes' of the regulator, considers the same materials, and evaluates whether the decision was reasonable as to the facts, the principles, and the reasoning process employed.[1] It performs all the functions and exercises all the powers of the regulator; and it makes a determination affirming, setting aside, or varying the decision of the regulator.

Desirability

Regulators usually have considerable discretionary power because of the lack of specificity in the statutes that govern corporate conduct. Allowing such discretion is understandable, as it is impossible to foresee all the circumstances that could arise under legislation. It creates potential for costly errors, however.

Most (if not all) matters considered by regulators are subject to a considerable degree of ambiguity. Regulators are required to make a number of choices – about assumptions, models and data – and any of these can result in error. Such errors are potentially costly, especially if they cause firms to make investment decisions that impair dynamic efficiency. A merits review process subjects regulator choices and decisions to independent scrutiny and thus reduces the likelihood of a significant error being allowed to proceed.

Merits reviews also help reduce the likelihood of regulatory error occurring in the first place – the prospect of an appeal provides an incentive for regulators to produce carefully reasoned and balanced decisions. In a submission presented to the Australian Productivity Commission's 2004 inquiry into the gas access regime in Australia, the Australian Competition and Consumer Commission (ACCC) Commissioner Ed Willett acknowledged that a merits review imposes a strong discipline on regulators:

> ... one of the things that has really struck me is the discipline created [when] you know your work is reviewable ... you really need to be able to be in a position to prove [your findings].[2]

Nevertheless, regulators should not fear merits reviews. Clarification of relevant economic principles and the meaning of the statute helps inform their future decisions. And, if they are dissatisfied with the interpretation, *they* can appeal, or they can seek to convince the government that a change in the law is appropriate.

In its review of the gas access regime, the Australian Productivity Commission recognised the need for a merits review process:

> ... appropriate protection for property rights and natural justice are key considerations. While the appeal process might take considerable time and expend considerable resources, the regulatory bodies and Ministers have powers to make decisions that have an impact on fundamental rights of service providers. The prospect of exposure to imperfect regulatory instruments means there is a strong case for a merits review.[3]

Australia now allows merits reviews as part of its Gas Access Code. The Code has only been in operation for a relatively short time, but in that period there have been four merits-based appeals before two different appeal bodies. In each case the regulator has been overturned, either in whole or in part.[4]

If regulatory statutes were highly prescriptive, then judicial review might be a sufficient check on regulator power. But most economic regulation is not so prescriptive. When regulators have discretionary powers, they can arrive at decisions which are legally correct but which have damaging economic and social consequences.

In these circumstances, merits reviews provide an in-built correction mechanism that should be a fundamental part of the regulatory process. They provide the means of clarifying both the law and the principles underlying its interpretation and enforcement. They help keep the process predictable and sustainable. And they provide guidance to firms, consumers, and regulators as to what is acceptable – which leads to more-efficient regulatory outcomes.

1 Of course, merits review bodies can themselves make errors and, in the interests of natural justice, it is important that their decisions can be appealed to a higher authority.

2 Transcript from ACCC submission to the Productivity Commission inquiry into the gas access regime. Sydney 25 March 2004 pp705-706.

3 Productivity Commission. 2004. *Review of the Gas Access Regime* Report No. 31. Canberra.

4 These decisions have established the principle that it is not the task of the ACCC to set rates of return for gas pipeline owners, but simply to approve rates proposed by them as long as they are consistent with the underlying law.

This material was presented at the ISCR half day seminar, Contemporary Issues in Regulatory Theory and Practice, in March 2005 in Wellington.

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OECD *finds* WEAPONS of TAX DESTRUCTION

As a way of promoting their economic growth, many developing countries – and most developed countries – offer tax incentives of one kind or another to foreign investors. But, since 1996, the OECD has been engaged on a campaign to stop developing countries from doing this. Michael Littlewood examines the OECD's campaign, and looks at some of the questions it raises.[1]

The offering of tax incentives to foreign investors can have negative consequences for a foreign investor's country of residence. For example, the foreign-investor firm might close down a factory in a high-tax rich country and establish a new one in a low-tax poor country. For the rich country, the consequences might include a decrease in economic activity generally (manifesting itself in job losses, in particular) and a fall in government revenue.

It is not surprising, then, that the rich countries have watched with some discomfort the efforts of the developing countries to attract foreign investment by means of tax incentives. In recent years, this discomfort has led to action. Most notably, the OECD has embarked on a 'project' to eradicate what it calls 'harmful tax competition'. The project was launched in 1996 and continues today.[2]

According to the OECD, there are two forms of harmful tax competition: tax havens; and harmful preferential tax regimes (in essence, tax incentives aimed at attracting foreign investment).[3] So the OECD project has three main components: eliminating tax havens; eliminating harmful preferential tax regimes[4] in OECD member states; and eliminating harmful preferential tax regimes in non-member states.

Rules of engagement

In 2000, the OECD published a list of 35 jurisdictions which it classified as tax havens – and it also reported that most of its own member states were operating preferential tax regimes.[5] After some 'dialogue', all but 7 of the 35 tax havens promised to adopt reforms stipulated by the OECD.

In 2002, the OECD published a list of these seven 'uncooperative' tax havens.[6] Two of the seven subsequently promised to do as the OECD demanded. So the OECD's list of 'uncooperative' tax havens now has only five jurisdictions on it: Andorra, Liberia, Liechtenstein, the Marshall Islands, and Monaco.[7]

As for the preferential regimes of the OECD's own member states, it was reported in 2004 that all of them had either been abolished or been amended to remove their 'potentially harmful features' or been found to be in fact 'not harmful'.

The OECD seems to see itself as having entirely solved the problem of its own member states' harmful preferential regimes – and as being well on the way to ridding the world of tax havens. It seems ready, now, to concentrate on the third main component of its project: identifying 'harmful' preferential tax regimes in non-OECD countries and persuading these countries to desist.

But the OECD's campaign against preferential regimes seems flawed both in principle and in some important technical respects.

Say that again?

The OECD maintains that preferential tax regimes harm 'global welfare' and that eliminating them would therefore raise 'global

welfare'. This claim, in turn, is based on the idea that countries offering tax incentives to foreign investors are engaged in a 'race to the bottom'.[8]

The 'race to the bottom' works as follows. If a country seeks to attract foreign investment by offering preferentially generous tax treatment, some other country might compete for the same investment by offering even more generous treatment. Then the first country might respond by offering treatment that's more generous still – and so on, and so on, until the benefit of attracting the investment has been reduced to zero. Indeed, the country which succeeds in attracting the investment might even suffer a loss, because it might find itself permitting the foreign investor to benefit from its expenditure (on infrastructure and education, for example) or other resources without adequate recompense. If this is so, the preferential regime won't be generating growth: it will merely be permitting the foreign investor to exploit the host country.

The problem with these claims is that the OECD has supported them with only the most skeletal theory, and with no satisfactory evidence. In particular, the OECD's theory would appear to require the measurement of 'global welfare'; but it has not explained how this is to be done. Even if changes in global welfare could be measured, on what basis could they be attributed to preferential regimes rather than other factors? If it is impossible to demonstrate with reasonable confidence the likely consequences of a proposed policy, it is important that the procedure by which the policy is determined should allow a suitable voice to all those likely to be affected. The OECD's tax project seems not to satisfy this criterion.

Poor us

The OECD's central complaint is that preferential regimes might 'erode the tax bases of other countries'.[9] This proposition seems sound enough in itself. It is, however, insufficient for bearing the weight the OECD seeks to place on it. Yes, preferential regimes are likely to lead to the erosion of other countries' tax bases. And yes, this is in a sense their principal objective. But it does not follow that such regimes are likely to detract from global welfare (however defined).

Losses suffered by the countries whose tax bases are eroded might be offset – or more than offset – by the gains made by those countries operating the preferential regimes. Indeed, given that the countries making the complaint are mostly rich (as is evidenced by the fact that they are using the OECD as their vehicle) and given also that the countries using preferential regimes are mostly poor, it seems likely that the shift of investment resulting from preferential regimes would add to global welfare. This holds even if, as has been suggested,[10] such a shift imperils the welfare state in OECD countries.

> "The OECD's campaign to eradicate tax havens and harmful preferential tax regimes seems flawed not only in principle. It's flawed in important practical respects, too."

Since the shift in investment is induced by tax incentives, it may be that the tax revenues that disappear from the country losing the investment do not reappear in the hands of the government of the country gaining the investment. It does not follow, however, that the country operating the regime cannot gain. The reason is that the shifted investment, although producing less tax revenue than in its original country, might nonetheless produce private benefits for its new host country – in forms such as wages, training, and technology transfer. Benefits of these kinds seem in fact to be common. In some circumstances they also generate government revenues – for example, tax on income from employment. Moreover, the gain might be difficult to measure: a job with a US firm in Shanghai might be more highly valued than the same job in Detroit, even at lower pay.

Practical flaws

The OECD's campaign to eradicate tax havens and harmful preferential tax regimes seems flawed not only in principle. It's flawed in important practical respects, too.

In particular, the OECD has not adequately defined either 'tax haven' or 'harmful preferential tax regime'. Consequently, the project's results to date seem unsatisfactory. A number of jurisdictions which seem plainly to be tax havens (for example Switzerland and Hong Kong) have not been classified as such by the OECD. Furthermore, of those jurisdictions which are generally not regarded as tax havens, most and probably all function as havens in some circumstances. For example, the United States does not tax interest paid to non-residents, and this makes it possible for persons resident elsewhere to escape tax on this interest in their home jurisdictions.

The OECD has not yet attempted to identify the harmful preferential tax regimes operated by non-member states. It seems likely, though, that when it does so the results will be similarly unsatisfactory. The havens identified by the OECD are generally small and uninfluential; yet the OECD seems to have found it difficult to persuade them to cooperate (and this task remains far from complete). The countries operating harmful preferential tax regimes include China, India, Russia, Brazil. For the OECD to persuade these powerhouses of the developing world to desist seems likely to present a number of challenges.

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1 M Littlewood. 2004. 'Tax Competition: Harmful to Whom?' *Michigan Journal of International Law* 26 p411. The author is grateful to the *MJIL*, the University of Michigan Law School, and Chapman Tripp for their support of the research upon which the article is based.

2 This has been documented in a number of OECD publications, which are cited in the footnotes below. See also: OECD. 2001. *The OECD's Project on Harmful Tax Practices: The 2001 Progress Report*. All these OECD publications are available at www.oecd.org, as are the press releases cited below.

3 OECD. 1998. *Towards Global Tax Co-operation: Report to the 2000 Ministerial Council Meeting and Recommendations by the Committee on Fiscal Affairs: Progress in Identifying and Eliminating Harmful Tax Practices*.

4 OECD. 2000. *Harmful Tax Competition: An Emerging Global Issue*.

5 OECD press release 18 April 2002.

6 OECD press release 12 December 2003.

7 OECD. 2004. *The OECD's Project on Harmful Tax Practices: The 2004 Progress Report*.

8 OECD. 1998. (see footnote 2) para 43.

9 ibid. para 4.

10 See, in particular: R Avi-Yonah. 2000. 'Globalization, Tax Competition, and the Fiscal Crisis of the Welfare State' *Harvard Law Review* 113 p1573.

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UPPING THE GAME
in our Financial Markets

New Zealand's financial sector is dominated by banks – and most of our financial markets are underdeveloped by international standards. That was Paul Dickie's verdict in his first article on New Zealand's financial markets (see *Competition and Regulation Times* Issue 16). Now he looks at what could be preventing the markets from developing transparency and competitiveness, and what can be done about it.

First, the good news. We are fortunate to be the beneficiary of the English common-law system that has been recognised as the most adaptive legal framework for the development of financial markets.[1] English common law was written by judges; it evolved based upon precedent and was intended to protect individuals from the arbitrary actions of the Crown. This case-by-case evolution means that large gaps do not tend to emerge between financial-market developments and legal capabilities – thus providing an ideal legal foundation for supporting the development of financial markets.

Shaky teamwork

The recent regulatory picture is more mixed. For example, it is now recognised that the degree of protection of minority rights of shareholders is of particular importance for the development of equity markets. Unfortunately, in the 1996-2000 period, our security laws were ranked well below the average (compared with other countries that have common-law origins).[2]

Under the 'level playing field' approach to regulation adopted in the latter part of the 1980s, no special protections were given to any one group of economic players. While this approach provided a necessary break from the previous philosophy of additional protection at many levels and in many sectors of the economy, it left small investors exposed to the greater market power of the corporate insiders. The result was that these investors stayed on the sidelines of the equity markets and did not contribute their savings in a substantial way to those markets.

'Voting with your feet' was understandable. Small investors were not willing to access the courts in order to protect their individually small stock investments against the powers of corporate insiders. And there was no regulatory agency empowered to undertake this task on their behalf.

Without the active interest and participation of minority investors, an equity market is destined to languish – and that is what happened in New Zealand. In the last few years, however, the government has done much to upgrade our securities laws to strengthen disclosure and enforcement. For example, insider trading that that had taken place at the expense of minority investors has been more effectively curbed. The newly empowered Commerce Commission, the international best practice rules of the Takeovers Panel, and the forward-looking leadership at NZX have combined to more forcefully protect and attract minority investors. This can only benefit the equity markets.

Blame the coach?

But New Zealand's problems are perhaps more severe in terms of our potential issuers. Our one Global 500 Corporation, Fletcher Challenge, disappeared from those rankings in the 1980s. And without major corporations to lead the development of financial markets, our concentrated banking sector will continue to successfully resist any disintermediation.[3]

All is not lost, however, if there is appropriate government support for financial market development. Singapore, for example, is comparable to New Zealand in terms of population and still has only one Global 500 Corporation. Yet it has managed to develop itself into a world-class international financial center. Moreover, with new technologies and market approaches, we do not need so many large issuers to overcome the network effects and create viable securities markets.

But the biggest issue has been the lack of government commitment in the support for financial markets. Two examples will illustrate this case.

In pricing corporate debt securities, a benchmark yield curve is highly desirable. The government, as the issuer of Treasury bills and notes and bonds with an AAA rating, can play an essential role here.[4] To fulfil this role, the Treasury would need to undertake its debt-funding operations in a way that ensures ready availability of the key benchmark issues. But this has never appeared to be a priority of its funding operations: the lowest-cost issuance strategy predominates in funding decisions and this tends to favor longer-maturity issues. While this approach is narrowly justified on cost grounds, it ignores both the important role that government securities could play in pricing private debt securities and the public good that can result from such markets.

The second example takes us back to the small investor. When the New Zealand government began to privatise state-owned corporations, there was a clear choice between initial public offerings or trade sales. Because trade sales to knowledgeable industry players could generally be expected to yield higher returns relative to an uncertain public offering, trade sales were generally the choice. Never did our various governments take the 'Thatcher' position – that public offerings at substantial discounts to the market price, with appropriate instalments, would attract small investors and create within the middle class a large group of minority shareholders who would see the benefits of saving and investing through the capital markets. This kind of dedication to creating vibrant capital markets accessible to minority investors has never seemed to have secured a place on the political agenda in New Zealand. 'Low savings' is not a good excuse: the 'Thatcher' approach is exactly the sort of innovation that might encourage greater savings.

Furthermore, financial markets have important public-good contributions. They are important as the basis of all other financial transactions: you need to have a clear market price for money, in order to have clarity of pricing over time in the goods and the private-securities markets. More fundamentally, in order to negotiate successfully with financial institutions, you need to know the market price for the commodity in question. Without that knowledge, small and medium-sized enterprises and individuals stand at a distinct disadvantage compared with financial institutions – especially where market comparisons are not readily available. Even in the well-advertised areas of retail deposit rates and mortgages, there are so many variations in fees and charges that simple market comparisons are not very easy or meaningful.[5]

Keeping our eye on the ball

Statistics on transaction volumes, prices and outstanding securities in all financial markets should be collected and made publicly available in a timely manner. For example, the funding of our domestic mortgages is sometimes sourced through the Eurokiwi markets – and, according to a recent Westpac analysis,[6] we can expect major redemption of these Eurokiwi issues from 2006. This is likely to be a major depressant on the value of the New Zealand dollar in that period. To allow forward planning and appropriate hedging approaches, such information should be readily available to all market participants on a timely basis.[7] Full information to market participants on such foreign-exchange-market developments is likely to be much more effective in smoothing out the exchange-rate cycle than sterilised Reserve Bank intervention at the peaks and troughs will be.

But the major benefits of increased information will also be more effective competition. For example, we don't yet have an open pricing in the market for foreign exchange. So why doesn't the Reserve Bank make real-time foreign-exchange information (from the interbank wholesale market) available to the public? Ideally, this should be an internet-based service – but, as a first step, it should be possible at least to have a Reuter's machine in the Reserve Bank lobby.

Governments also need to support the development of financial markets as public goods. For example, there is a need for a secondary mortgage market in New Zealand: this would allow lower-cost mortgages while providing the banks with an outlet for selling the mortgages on their book and thereby reducing their maturity mismatches and allowing for an increased generation of origination fees. The Hong Kong government has cooperated with the banks in setting up such a market for securitised mortgages for the benefit of all participants. Why shouldn't such market developments, if proven viable, be supported by the Reserve Bank? And, before it undertakes uncertain and potentially costly intervention in the foreign-exchange markets to cut the peaks and eliminate the valleys, why shouldn't the Reserve Bank actively encourage a futures and options market for the New Zealand dollar? Such a move would help protect those exposed to foreign-exchange fluctuations through publicly available financial markets.

Promoting resilience

Achieving more developed and diversified financial markets in New Zealand would seem to require an increased emphasis on the public provision of financial-market information, improved non-bank access to the markets, and government support for further financial-market development. This would serve to support the reduction of systemic risks, while yielding improved financial resiliency for our economy.

As noted in my earlier article,[8] banks are notoriously risky – and New Zealand is very vulnerable to this risk. But all of our major banks are foreign based, and there is no need to keep coddling them. Banks should no longer be protected from financial-market competition.

With the reduced exposure to banks, we would get reduced costs for the standardised financial products from our expanded financial markets. We would also get reinvigorated banks that will be induced to specialise in financial innovation, which will provide even further benefits in lifting our financial performance and our economic competitiveness. Promoting the resiliency of our economy through development of financial markets: there can be few policy options with more broad-based benefits.

1 R La Porta, F Lopez-de-Silanes and A Schleifer. 1998. 'Law and Finance' *Journal of Political Economy* 106 (6).

2 R La Porta, F Lopez-de-Silanes and A Schleifer. 2003. *What Works in Securities Laws?* National Bureau of Economic Research Working Paper 9882 July.

3 Paul M. Dickie and Emma Xiaoqin Fan. 2005. *Banks and Corporate Debt Market Development* ERD Working Paper No 67. Asian Development Bank Manila. Philippines.

4 It is possible that the interest rate swaps market could also provide benchmarks for the private debt market in New Zealand. See: R N McCauley. 2001. 'Benchmark tipping in the money and bond markets' *BIS Quarterly Review* March.

5 However, the recent development of websites covering the available financial products has been helpful for consumers wishing to make comparisons (see, for example, www.interest.co.nz and www.cardwatch.co.nz and www.consumer.co.nz). The government-sponsored services of this type seem to be limited to www.sorted.co.nz from the Retirement Commission, which offers financial planning tools.

6 Westpac Institutional Bank. 2004. NZD: *Uridashi still in demand* (www.wib.westpac.co.nz) September.

7 The last major analysis of the Eurokiwi market from the Reserve Bank was the very useful Eckhold primer. See: Kelly Eckhold. 1998. 'Developments in the Eurokiwi bond market' *Reserve Bank of New Zealand Quarterly Bulletin* 61(2).

8 See 'Evaluating our financial markets' *Competition and Regulation Times* Issue 16 p8.

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NOT SO BRIGHT? the DARKER SIDE of PPPs

Public-private partnerships (PPPs) are being debated in New Zealand for new roads and other major infrastructure. They've long been popular in Australia and the United Kingdom, where they harness private-sector innovation and efficiency to deliver infrastructure at lower cost and lower risk to taxpayers. But, as David Ehrhardt reports,[1] it's becoming clearer that PPPs have their dark side.

Many private infrastructure projects involve:

- regulation or contracts that subject the private company to considerable risk
- high leverage (debt:equity ratio) in a project-finance structure
- a government or regulator reluctant to let the provider fail.

Together, these factors can mean that shareholders and bankers get the profits during good times – but in bad times customers and taxpayers pick up the tab. Three examples in Australia, the United Kingdom and Brazil cast light on this darker side of PPPs.

Melbourne transport

In 1999 the state government of Victoria contracted out Melbourne's tram and train services. Top international transport operators competed, with the franchises going to the companies willing to provide good services for the lowest subsidy. On awarding the contracts, the state government announced that it had achieved total savings of A$1.8 billion over the life of the franchises (compared with the cost of public-sector operation).

Under the contract, the operators took on the operating-cost and demand risks. The demand risk was amplified by the fact that roughly a third of the anticipated subsidies were linked to the level of passenger growth – and, within a few years, the franchisees began to hit financial difficulties. They could not achieve the patronage growth and cost savings forecast.

The total capital put at risk by the operators was around A$135 million in equity and performance bonds – only 7.5% of the anticipated savings to the government. By 2001, the operators had concluded that anticipated losses over the lifetime of the contract exceeded the value of the equity and performance bonds at risk. They presented the government with an ultimatum: increase the subsidy and reduce the operators' risk – or the operators would terminate their contracts.

The state government concluded that it was best to negotiate, as it did not want to take the services back into the public sector. An analysis of the market showed it was unlikely to get a strong field of bidders if it re-tendered the contract. In the course of the complex renegotiations, one of the operators (National Express) was not able to reach agreement with the government – and it left, losing its performance bond. The other two (Connex and Transdev) each took over part of National Express's business, and retained their existing franchises, in exchange for substantial increases in subsidy and reductions in risk. The government's expected savings and risk transfer ended up being less than expected.

UK air-traffic control

National Air Traffic Services (NATS) is the air-traffic controller for the United Kingdom. In March 2001, NATS was partially privatised. A consortium of seven British airlines took a 46% stake in the company, a 5% stake was held for employees, and the government retained a 49% stake.

NATS' charges were subject to a price cap, to be reviewed once every five years. Between these five-yearly reviews, NATS took all the demand risk.

NATS had been forecasting strong growth in demand; but, after the terrorist attacks of 11 September 2001, air-traffic volumes plummeted. The company was highly indebted, with leverage of at least 92%. As demand fell, NATS was not able to service its debts – and bankruptcy loomed. NATS asked its regulator, the Civil Aviation Authority (CAA), for help.

CAA Board member Doug Andrew balked. He argued that NATS' bankers should write down its debt to a level it could service. The rest of the CAA Board disagreed, as did the British government. The government injected equity of £100 million into NATS. The CAA raised NATS' price cap, and also reduced the amount of demand risk the company bears. Together, customers and taxpayers

shouldered the risk they had apparently transferred.

Sao Paulo's electricity

Eletropaulo Metropolitana is the electricity provider for Sao Paulo, Brazil's largest city. Eletropaulo was privatised in 1998 for $1.78 billion. Through a complex structure, the US energy company AES came to own around 70% of Eletropaulo. This meant that although Electropaulo itself did not appear to be highly leveraged, it was. An asset valued at US$3.6 billion needed to generate enough cash to service a debt of US$2.8 billion, creating effective leverage of close to 80%. Most of the loans were from the state-owned Brazilian Development Bank (BNDES).

Brazil's electricity system relies on hydro-generation. In 2001 low rainfall, compounded by an underinvestment in generation capacity, created shortages. The government introduced rationing – and so power sales fell, as did Eletropaulo's profits. At the same time the Brazilian real depreciated rapidly, increasing the local currency cost of serving the US$-denominated debt. By May 2003 the AES financing companies had defaulted on loan payments totalling over US$600 million.

BNDES had the right to claim the shares in Eletropaulo when AES defaulted, but it was reluctant to do so. It did not want to renationalise the asset and perhaps undermine the wider investment climate in Brazil. Instead, BNDES agreed to a debt-for-equity swap which left AES with a majority stake.

Once again, risks that the government thought it had transferred came back to haunt taxpayers when the going got tough.

A dangerous cocktail

New Zealand too has had some experience with government bailouts of indebted infrastructure/service providers (Tranzrail and Air New Zealand spring to mind). High leverage, regulatory or market risk, and governments who do not want these providers to fail are clearly a dangerous cocktail that can leave customers and taxpayers with a nasty hangover.

This is because private infrastructure providers are usually special-purpose companies. The amount of downside risk they can absorb is effectively limited to the amount of equity they have. When things go wrong – when costs increase, or revenues fall – the first effect is to reduce shareholders' returns. But a shock which reduces operating cashflow to such an extent that the provider can no longer service its debt cannot be absorbed: it will lead to a default, forcing the company into bankruptcy (unless the lenders agree to restructure the debt). Since governments do not want essential-service providers to go bankrupt, they often step in to provide subsidies or relax regulatory rules. Knowing this, companies may choose high leverage levels, limiting the amount of risk they have to absorb before getting a bailout.

Anticipating the 'morning after'

Overcoming these problems is difficult – but there are options:

- reducing the amount of risk which contracts and regulation attempt to transfer
- requiring private infrastructure providers to limit their leverage
- making it easier for governments to let private infrastructure go bankrupt.

"a dangerous cocktail that can leave customers and taxpayers with a nasty hangover."

Reduce the transfer of risk

In some cases, the best approach may be to reduce the risk of bankruptcy by building explicit risk-sharing mechanisms into transaction designs. For example, PPP contracts could provide for tariffs to adjust in response to changes in demand and input prices, or provide for resets or profit-sharing if returns move outside a pre-defined band.

Require a limit on leverage

A disadvantage of reducing the riskiness of contracts is that a company might respond to the lower risk-transfer by increasing its leverage, leaving the likelihood of bankruptcy unchanged. Options for preventing this include a requirement for guarantees from the parent company, minimum equity levels in the project company, third-party guarantees or performance bonds – all of which aim to ensure that the capital at risk reaches stipulated levels. At a minimum, governments should avoid guaranteeing project debt, because this distorts financing choices in favour of debt.

It could be argued that stipulating minimum levels of sponsor capital at risk will increase the cost of project finance. However, this might sometimes be a price worth paying to transfer risk effectively from consumers and taxpayers.

Let private providers go bankrupt

Governments do not like private infrastructure providers going bankrupt because they fear the disruption of essential services. An obvious solution to this is to give the government the power to intervene in the event of financial distress, to ensure that service provision continues.

Governments often do have this power, but choose not to use it. For example, the UK government had the power to take control of NATS; but they chose to ease its price cap instead. The same is true of the Victoria state government and Melbourne's urban-transport franchises. And when Railtrack in the UK was faced with bankruptcy, the government used its powers to put the company into 'railway administration' – but it also indemnified both debt providers and shareholders against losses, to avoid law suits and to ensure continued financing.

Another option is to encourage the company's lenders to use 'step-in rights' to take over management in the event that a company appears likely to default. The government could require that the contractual documents give the lender an obligation to continue providing services, if it exercises its step-in rights. So the lender would act as the government's agent, taking action to ensure the provision of services at the same time as securing payment of its debt.

In Australia and elsewhere PPPs are used to provide much-needed roads, improved public transport, and even new gaols and hospitals. They have promise for New Zealand, too. But, when they consider the costs and benefits of private financing, governments also need to think about whether the hoped-for savings are robust – or whether they'll wither away, if things turn bad.

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1 This article is based on: David Ehrhardt and Timothy Irwin. 2004. *Avoiding Customer and Taxpayer Bailouts in Private Infrastructure Projects: Policy toward Leverage, Risk Allocation, and Bankruptcy* World Bank Working Paper No. 3274 April.

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Breeding **Fiercer Watchdogs** for Corporate **Governance**

Because corporate insiders have an inherent information-advantage over external stakeholders, common sense dictates that governance systems should empower independent parties to monitor corporate behavior and reports – in other words, we need fiercer watchdogs in corporate governance. Boston College's Edward Kane looks at how to put more bark (and bite) in the dog.

Corporations produce, collect, verify, analyse, store, and transmit pieces of information that, when properly presented, can accurately describe their periodic performance and financial condition. Accounting standards and corporate controls are then supposed to flag irregularities in corporate reports for close follow-up review by internal and external 'watchdogs'.

> A watchdog's job is:
> 'to probe, to uncover, to check, to expose, to unveil, to question, to interrogate … to disbelieve, until that which we are being told can be proved to be true'.[1]

Internal watchdogs are a firm's board of directors and auditing team, who are given the task of developing sound and comprehensive reporting safeguards and detecting deviations from them. The reliability of the work of these internal watchdogs is tested by other (external) specialists. These external watchdogs include outside auditors, stock analysts, credit-rating agencies, standard-setting professional organisations, regulators, government examiners, law-enforcement personnel, and information media ('the press').

Recent scandals show that corporate officers are often reluctant to communicate adverse information about a firm's performance and risk-taking – either to their boards or to public watchdogs and other outside parties. And, in many countries, flaws in the ethical codes of watchdog professions encourage their members to cunningly abet the manufacture of misinformation.

Don't count on accountants

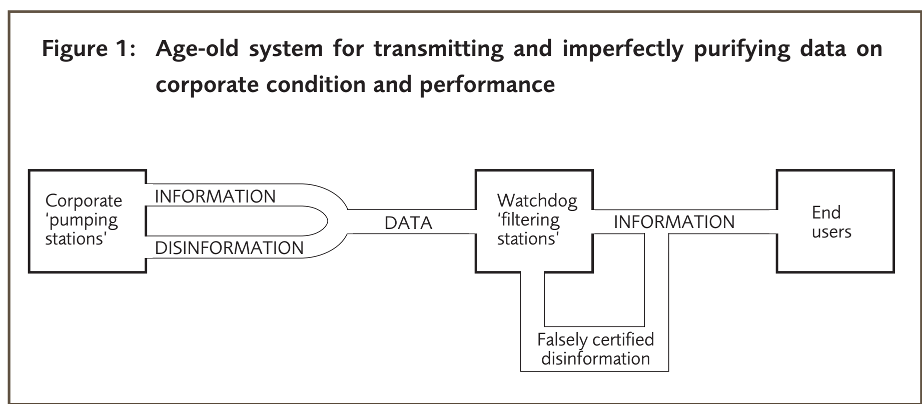
In the US, the Sarbanes-Oxley Act of 2002 placed strong truth-telling obligations on corporate officers and increased penalties for misrepresenting material facts. However, the Act did nothing to increase accountability for accountants who help dishonest officers by offering to search out reporting loopholes that provide defensible ways to certify deceitful claims. This asymmetry is no accident: the accounting profession has a worldwide history of opposing meaningful reform.

As long as auditors can mask malicious or fraudulent intent, they can weasel out of civil liability for abetting client concealment. An accounting firm can do this by requiring clients to accept covenants that are designed to limit the accountants' responsibility to an affirmation that any figure they bless was constructed by one of several professionally 'approved' techniques. Professional norms and codes do not require auditors to highlight particularly aggressive assumptions. Nor do they require auditors to use statistical methods to double-check the reliability of dodgy facts and projections against the implications of relevant other evidence, or to express specific suspicions they may have about potential bias or distortion.

Figure 1 illustrates what happens when a gap exists between the accountability for truth-telling imposed on corporate insiders and the accountability assigned to producers of watchdog services. The conflicts of interest such a gap creates undermine the career prospects of conscientious accountants who might otherwise be disposed to accurately inform outside interests.

This accountability gap also makes it possible for an opportunistic auditor to generate concealment revenues for his or her firm and to disguise these as payments for ancillary services. In many countries today, a successful revenue 'rainmaker' can advance more rapidly in the accounting industry than can an equally talented but conscientious employee. Career ladders that advance unscrupulous individuals help to explain the industry's resistance to reform – because highly placed but unscrupulous rainmakers must be expected to lobby for professional standards that protect the rents their firms can earn from abetting deceitful behavior.

Figure 1: Age-old system for transmitting and imperfectly purifying data on corporate condition and performance



The golden rule

While philosophers find it impossible to formulate universal moral principles, common-law theories of corporate contracting impose broad duties of competence, loyalty, and care on all stakeholders. Although these duties are hard to enforce, they require insiders and outsiders alike to explore the economic perspectives of external stakeholders and to avoid doing net (insufficiently compensated) harm to any of them.

This principle of non-exploitation expresses a 'Golden Rule of Corporate Governance'. This rule can serve as a touchstone by which to pinpoint conflicts in the incentive systems under which real-world corporate managers and watchdog professions operate.

In formulating and enforcing standards that define conscientious performance, every profession courts the respect and confidence of the general public. A profession's incentive system is 'evenhanded' or 'impartial' if it minimises temptations for its members to engage in inefficient, dishonest, or exploitive behavior. Until the ethical code of any nation's

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accounting industry firmly embraces two Golden Rule duties – that is, to avoid any corrupting forms of compensation and to guarantee the economic meaningfulness of the income and net-worth figures that corporations publish – the profession will find it hard to garner the authority and prestige that its members covet.

"the accounting profession has a worldwide history of opposing meaningful reform."

Give a dog a bone

The issue is not whether accounting standards should be rules-based or principles-based. Nor would it make much difference if audit firms were banned from performing a few specific types of non-audit services. As long as deception is profitable, the rents generated by opportunistically creating and widening reporting loopholes will support career ladders that penalise individual watchdogs for exercising principled behaviour.

The most reliable way to improve accounting transparency is to make 'loophole mining' less profitable. A reform that could do this would be to insist that any firm supplying external-auditing services must *either* directly insure end-users against provable harm from its work *or* have directors' and officers' liability-insurance policies for each firm whose corporate reports it certifies. This would ensure that what the auditing arm might earn from hiding poor performance or bad behaviour at a client firm is closely offset by the liability it creates for the organisation on its insurance book.

1 Frederick Forsythe. 1999. *The Phantom of Manhattan*. St Martin's Press. New York.

2 Alan Robb. 'Reluctant Reformers Fall Short' *The New Zealand Herald* 17 June 2003.

3 From: Edward J Kane. 2004. 'Continuing Dangers of Disinformation in Corporate Accounting Reports' *Review of Financial Economics* 13 (1-2) pp149-164.

4 In the US and other former British colonies.

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negative payoffs at an interest rate of 10%. So the current values of the project payoffs from investment one year hence are:

$$\text{Project L: } \frac{1}{1.08}\cdot\frac{1}{2}\cdot\left(\frac{400}{1.06}+\frac{400}{(1.06)^2}+\frac{400}{(1.06)^3}-1000\right)=32$$

$$\text{Project S: } \frac{1}{1.08}\cdot\frac{1}{2}\cdot\left(\frac{576}{1.08}+\frac{576}{(1.08)^2}-1000\right)=26$$

The opportunity cost of immediate investment for L ($32) is greater than for S ($26). Moreover, since 27 is greater than 26 but 31 is less than 32, the optimal decision is to invest in the short-term project today – and not in the long-term project. The greater interest-rate sensitivity of the long-payback project outweighs its higher NPV, so choosing the project with the shorter payback period leads to the right decision.

But sometimes beta tomorrow

This example should not be interpreted as implying that short-payback projects are always best, regardless of NPV. It is, for instance, not difficult to construct other examples where the long-payback project offers the greater value, reflecting the fact that the correct usage of payback is in conjunction with NPV rather than in isolation.[4] The point is not that shorter payback is always better, but rather that it lowers the NPV required to justify investment today. In general, there is a trade-off between payback period and NPV: shorter payback is good, but not if it is at the expense of too much NPV.

Long-term projects have greater systematic risk and more valuable timing options, both of which increase the expected return required to justify investment. As a result, the common perception that seemingly myopic decision rules are necessarily welfare-reducing is misleading. The future is not costless.

1 B Cornell. 1999. 'Risk, duration, and capital budgeting: New evidence on some old questions' *Journal of Business* 72 pp183-200.

2 J Campbell and M Jianping. 1993. 'Where do betas come from? Asset price dynamics and the sources of systematic risk' *Review of Financial Studies* 6 pp567-92.

3 G Boyle and G Guthrie. 2005. 'Payback without apology'. Forthcoming in *Accounting and Finance* (and available at www.iscr.org.nz/navigation/research.html).

4 Interestingly, surveys of capital budgeting methods indicate that most firms do in fact use payback in conjunction with NPV or some other discounted cashflow method. See the references in Boyle and Guthrie *op cit*.

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Not much downside

Parallel importing was not associated with reductions either in marketing or variety of films released in cinemas, at least over the (relatively short) period studied. So consumers were not disadvantaged in either the amount of information they continued to receive about cinema releases (reducing their search costs) or the range of available films (satisfying their heterogenous preferences).

At the time of the 2003 legislation, protection against parallel imports was justified by some on the grounds that it reduced piracy and protected regional cinemas. In fact, parallel importing has been repeatedly found not to be associated with increased piracy. Furthermore, piracy is addressed in the 2003 legislative amendment by shifting the onus (of proving the legitimacy of imported goods) to the importer. There is no evidence – or even, we understand, suspicion – that DVD piracy in New Zealand increased because of parallel importing. And how the goal of protecting or encouraging regional cinemas relates to consumer welfare can only be conjectured, particularly in the light of moviegoers' revealed preferences for DVDs in the period of parallel importation.

We consider our results demonstrate a social net benefit from parallel importing. Consumers enjoyed benefits from competition between media (DVD versus cinema) and from earlier release of films in all relevant media.

1 Matt Burgess and Lewis Evan. 2005. *Parallel Importing And Quality: An Empirical Investigation* (www.iscr.org.nz/navigation/ research.html).

2 To our knowledge, there was no commercial parallel importing of VHS video tapes.

3 *Video Ezy (New Zealand) Ltd* v *Roadshow Entertainment (New Zealand) Ltd* 2002 1 NZLR 855; 2002 7 NZBLC 103, 524.

4 It is well known that earlier consumption is preferred to later consumption. Indeed, this is indicated by our data that suggest that consumers were willing to pay $10 to rent DVDs a few weeks in advance of the time when they could rent for $7.

5 *New Zealand Herald* 22 October 2003.

6 Quantitative studies have failed to find a relationship between piracy and parallel importing. See, for example: 'Parallel Importing And CD Piracy' a report prepared for the Intellectual Property and Competition Review Committee 26 January 2000.

7 We have no information on the locations of particularly affected cinemas.

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Corporate investment: is the long-term view always best?

Why do firms continue to use investment-decision criteria that are apparently biased against long-term projects? Is this simply a reflection of ongoing corporate myopia, or does it represent an intuitive rational response to the underlying costs and benefits of long-term projects? Glenn Boyle and Graeme Guthrie explain how seemingly myopic criteria can in fact approximate optimal decisions.

One of the most puzzling aspects of corporate practice is its apparent bias against long-term projects.

Numerous capital-budgeting surveys attest to the continuing popularity of the payback method, a calculation that effectively applies an infinitely high discount rate to cashflows expected after the return of the initial investment-cost. A less extreme version applies a high discount rate to all cashflows of long-term projects. Both methods place long-term projects at a significant disadvantage when it comes to allocating investment funds.

One popular explanation for this myopic behaviour is based on the observation that managers are often compensated for short-term performance and thus have an incentive to choose investments accordingly. However, such an explanation is unsatisfactory. It cannot explain why such compensation contracts would persist; nor can it account for the popularity of payback in owner-operator firms where no agency problem exists.

By reconsidering the role of uncertainty about interest rates for asset valuation, more recent research has (unexpectedly) identified ways in which the use of payback can lead to better investment decisions.

It turns out that long-payback projects are indeed 'costlier' than their short-term equivalents and thus must pass a tougher test, just as standard folklore suggests.

Beta today

One reason for this is that long-payback projects have greater systematic risk. Recall that the standard measure of systematic risk[1] – beta – captures the extent to which a project's returns move with those of the market as a whole. Since non-zero returns arise either because of changes in future expected earnings or because of changes in future expected returns (discount rates), beta risk reflects common variation in both expected earnings *and* in expected returns. Most discussions of this risk concentrate on the former, but empirical evidence suggests the latter is actually more important.[2] And this is bad news for long-term projects because, as bond traders have long known, the value of payments occuring a long time into the future is much more sensitive to interest rate changes than is the value of near-dated payments. A rise in market interest rates, for example, lowers the values of all assets, but has a disproportionately strong effect on assets whose earnings are concentrated in the more distant future. As a result, long-payback projects exhibit greater common variation in expected returns than do short-payback projects – and thus, all else being equal, long-payback projects have higher beta and therefore a higher cost of capital.

A second useful feature of the payback calculation is that projects with long payback tend to have valuable timing options, so that payback provides a simple, albeit approximate, method for incorporating dynamic factors in investment decisions.[3] Flexibility in investment timing is valuable because it provides the firm with the opportunity to obtain a greater payoff in the future if interest rates fall, without the risk of receiving a negative payoff if interest rates rise (since in that case investment does not proceed). Because of the interest-rate sensitivity effect described above, this opportunity is most valuable for long-term projects: unexpectedly low interest rates have a greater positive impact on the present value of distant cashflows. As a result, the opportunity cost of investment – the sacrifice of timing flexibility – is greater for long-term projects, thereby motivating a bias towards short-term projects.

A simple numerical example illustrates this point. Two projects, called L and S, have an initial cost of $1000 and can commence now or in one year's time. Project L offers certain cashflows of $400 per year for three years; project S offers certain cashflows of $576 per year for two years. Thus project L has a longer payback period than project S (approximately three years versus two years). The current riskless interest rate at all maturities is 8% and next year this will be either 10% or 6%, each occuring with probability $^1/_2$. If investment occurs today, the project's net present values (NPV) are:

$$\text{Project L: } \frac{400}{1.08} + \frac{400}{(1.08)^2} + \frac{400}{(1.08)^3} - 1000 = 31$$

$$\text{Project S: } \frac{576}{1.08} + \frac{576}{(1.08)^2} - 1000 = 27$$

To decide whether investment in either project should occur, these payoffs need to be compared with the present value of those made available by delaying for a year. Note that investment occurs next year if and only if the interest rate is 6%, since both projects yield

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