

The National Pensions Reserve Fund: Pitfalls and Opportunities

Philip R. Lane*

Trinity College Dublin and CEPR

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Abstract

This paper analyses some key issues concerning the new National Pensions Reserve Fund. We briefly review the basic demographic and economic trends that motivate the establishment of the Fund. We consider the pitfalls facing the operation of the Fund and argue that a complete ban on domestic investment would minimise the politicisation problem. At least initially, the Fund should adopt an aggressive investment strategy, with a large equity allocation. We further argue that asset allocation should take into account the co-variation of returns with domestic macroeconomic and fiscal variables. Finally, we discuss the organisational structure of the Fund and its implications for optimal performance.

* Economics Department, Trinity College Dublin, Dublin 2, Ireland. Email: plane@tcd.ie. Home page: <http://www.economics.tcd.ie/plane>. Tel: 353-1-608 2259. Fax: 353-1-677 2503. This paper was prepared for the ESRI conference on “Issues in Long-Term Pension Provision”, held on March 5 2001.

1. Introduction

The National Pensions Reserve Fund Act 2000 is a remarkable and innovative piece of economic legislation.¹ The current government has committed all future governments until 2055 to set aside at least one per cent of GNP each year. Moreover, the proceeds from the Telecom Eireann privatisation have also been added to the fund, as may the revenues from future sales of State assets. Over time, the Fund will become by far the largest investment institution in the country: a reasonable estimate is that size of the Fund will be equivalent to 42 percent of GNP by 2025 (Corrigan 2000).

The motivation for the National Pensions Reserve Fund (hereafter the Fund) is the projected future increase in public pensions expenditure.² In the absence of pre-funding, future taxes would have to increase in order to maintain the level of pensions benefits. From an efficiency perspective, the prospect of a rising tax profile is undesirable, since it distorts intertemporal decisions. The alternative to increasing taxes would be to raise contributions, cut benefits and/or increase the retirement age. Although these reforms may be part of the overall policy approach to an ageing society, pre-funding expands the political options in pensions reform.

This paper addresses some issues concerning the new Fund. We do not discuss whether the Fund is desirable *per se*. Rather, our intention is to probe the “pitfalls and opportunities” in the operation of the Fund. An open and informed public debate is vital if the Fund is to be politically sustainable: legislation can be amended and undone, so it is important to build widespread public support for the Fund if it is to properly perform its functions.

This paper deals solely with the pre-funding of social welfare and public sector pensions. Clearly, this is only a small subset of the full range of issues posed by the prospect of an ageing population. Other important policy issues include: raising the retirement age;

¹ See also Honohan and Lane (2000a), Lane (1999a, 1999b, 2000a) and Whelan (2001) for other commentaries on the new Fund.

² See Commission on Public Sector Pensions Report (2000) and Department of Finance (1998, 1999).

long-term immigration policy; an EU federal fiscal system (will Ireland pay the pensions of retired workers in older continental European societies?); promoting pensions in the private sector; the financing of health care for the elderly; indexation rules (CPI versus earnings) for pensions; and increasing the fertility rate. The potential impact on the political system of inter-generational conflict regarding pensions policy is also a fascinating topic. It is beyond the scope of this paper to deal with these problems.³

The structure of the rest of the paper is as follows. Section 2 reviews the basic demographic and economic trends that motivate the establishment of the Fund. Section 3 discusses some challenges facing the Fund. The Fund's investment strategy is analysed in section 4 and some management principles are laid out in section 5. Section 6 offers some concluding remarks.

2. Basic Trends

Ireland currently has extremely favourable demographics. Figure 1 shows the distribution of age cohorts in the working-age population: in the near term, it is clear that the burden of extra retirees will be relatively light.

However, Figures 2 and 3 and Table 1 capture the underlying motivation for establishing the Fund. The ratio of retirees to workers is projected to sharply rise during 2020-2050. In Ireland, the process is "back-loaded", with the ratio rising most sharply towards the end of this interval. The budgetary impact is that public pensions expenditure is projected to almost double from 4.6 percent of GDP in 2000 to 9.0 percent in 2050.⁴

The projected net increase in public pensions expenditure --- 4.4 percent of GDP (5.1 percent of GNP) --- is considerable. This is in the mid- to upper- range for EU countries and is equivalent to almost doubling public education spending or raising income tax revenues by 42 percent.

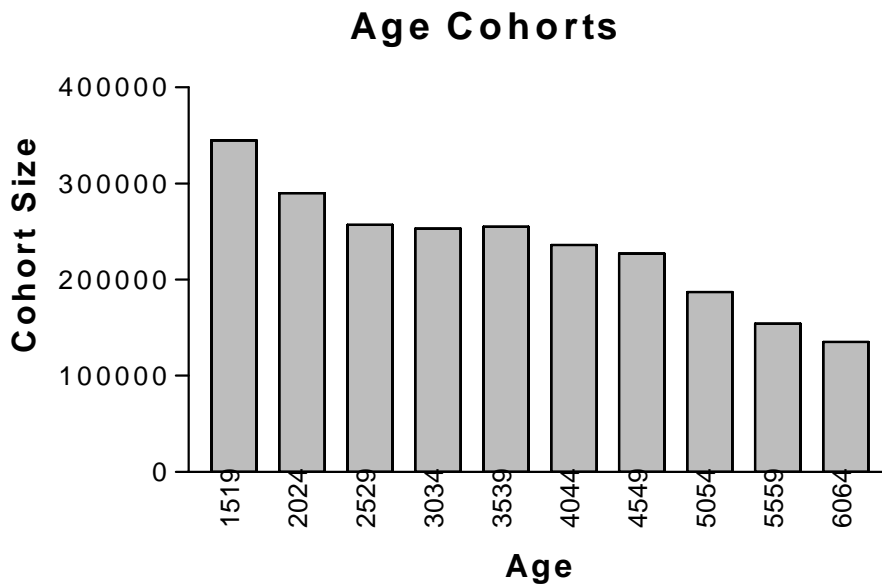
³ See Commission on Public Sector Pensions Report (2000) and Feldstein and Siebert (2001) for analysis of some of these issues.

⁴ This is a baseline projection. There is considerable uncertainty about these projections which depend on guesses about fertility rates, migration, productivity growth and benefits levels.

Although Table 1 shows that the scale of the pensions problem is currently far smaller in Ireland than in several continental European countries, the projected *increase* in public pensions expenditure is the most relevant criterion in determining the importance of pre-funding. On this count, Ireland is in the mid- to upper- range for EU countries. Moreover, the fact that the Irish ageing problem kicks in at a later date than elsewhere provides a greater rationale for pre-funding, since returns can accumulate over a longer time period.

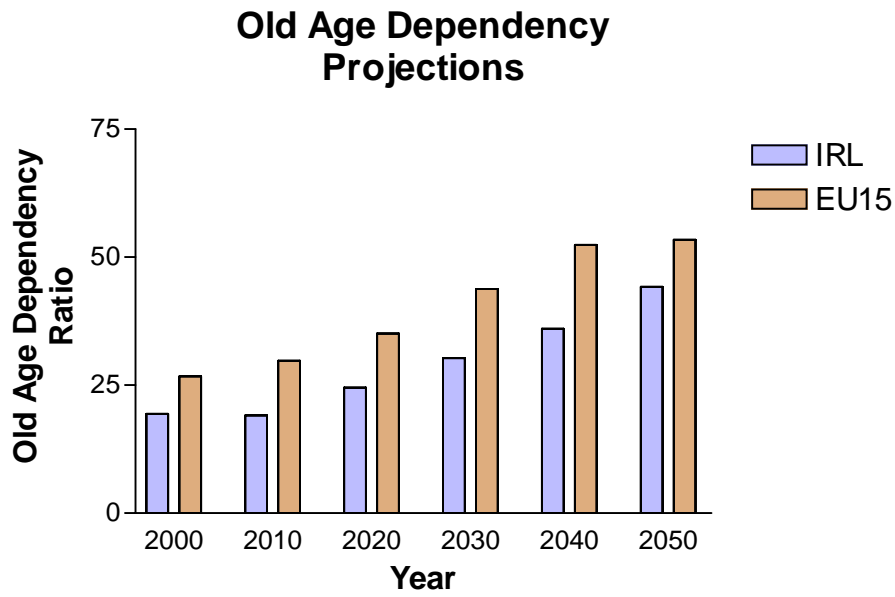
Finally, as is vividly illustrated in Figure 3, the dramatic improvement in the public finances means that the political climate for such long-term policies is unusually benign.

Figure 1. Age Cohorts



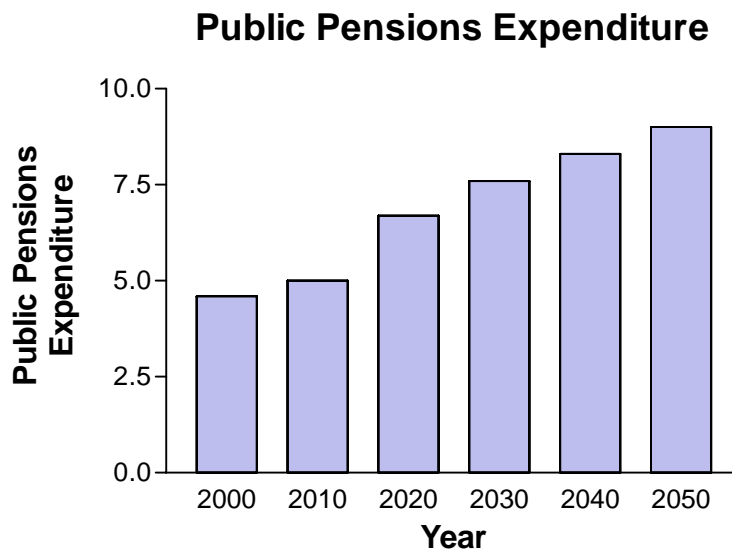
Source: UN Demographic Yearbook (2000). Data are for 1996.

Figure 2. Old Age Dependency Projections



Source: European Commission (2000), Table 4.1.2.

Figure 3. Public Pension Expenditure



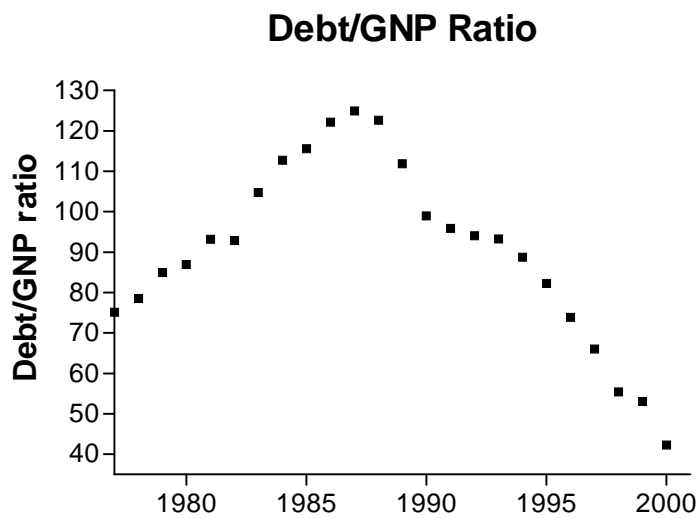
Source: European Commission (2000), Table 6.1.1.

Table 1. Pension Expenditure Projections

	2000	2030	2050
Ireland	4.6	7.6	9
UK	5.1	4.7	3.9
France	12.1	16	15.8
Italy	14.2	15.9	13.9
Germany	10.3	13.2	14.6
Spain	9.4	12.9	17.7
Portugal	9.8	16	14.2

Source: European Commission (2000), Table 6.1.1.

Figure 3. Debt/GNP ratio



Source: Department of Finance (2000a).

3. Some Pitfalls

In this section, we first discuss some potential pitfalls facing the Commission in fulfilling its responsibilities. We also discuss the role of the Fund in the broader public finances.

3.1 The Politicisation of Investment

There is a natural concern that state ownership of private assets can lead to an undesirable politicisation of the investment process.

Assar Lindbeck (2000) cautions against a state-owned investment fund

“There is a serious risk that future politicians will use government-controlled pension funds to allocate financial funds to those parts of the country where it is particularly important to buy votes. Politicians might also start using the voting rights in firms, based on share holdings, to exert influence within firms. It is naïve to think that authorities can create government-controlled pension funds, i.e., nationalize a large part of share ownership, without a severe risk that some politicians – sooner or later – will use these funds to buy votes or to exert direct power over firms, or both.”

Alan Greenspan (2001) similarly has raised doubts about the desirability of state ownership of private assets:

“I believe, as I have noted in the past, that the federal government should eschew private asset accumulation because it would be exceptionally difficult to insulate the government’s investment decisions from political pressures. Thus, over time, having the federal government hold significant amounts of private assets would risk sub-optimal

performance by our capital markets, diminished economic efficiency, and lower overall standards of living than would be achieved otherwise.”

There is considerable empirical evidence of political interference in the operation of state investment funds. Iglesias and Palacios (2000) document that returns can be inversely related to the degree of political interference. Sorensen et al (2001) show that reserve funds are often raided by US states during recessions when local tax revenues are under pressure.

In response to such concerns, the government has delegated responsibility for the fund to an independent Commission. However, this does not provide complete insulation, since the commissioners will be politically appointed to temporary contracts and, as always, ultimate responsibility lies with the Minister for Finance and the cabinet. Indeed, according to recent media reports, there has already been an attempt by a very large public company in Ireland to lobby for an 2900 percent over-weighting of Irish equities in the Fund’s portfolio (Suiter 2001).⁵

One potential manifestation of the politicisation problem is in battles for corporate control. Although section 15 of the Act prohibits the Fund from seeking to take control of a firm, much power can be exercised below this threshold: for instance, the Fund could be a key “swing” voter in a control contest between two other parties. More generally, if the Fund held domestic investment positions, asset sales could attract much criticism as being anti-patriotic.

There is a simple way to minimise the risk of politicisation: prohibit any investment in Irish assets. Ireland represents only a trivial fraction of world market capitalisation, so that a ban on Irish assets would not seriously constrain the range of feasible investments for the Fund. In this way, Ireland is more fortunate than the United States: it would not be

⁵ According to the report, the Smurfit Group requested an Irish equity allocation of 15 percent, although the Irish market is only 0.5 percent of world equity capitalisation.

feasible for the United States to accumulate a significant state investment fund composed purely of overseas assets.

The Act partially acknowledges this problem by prohibiting the Fund from holding Irish government bonds. However, the Fund is permitted to purchase any other kind of Irish asset: Irish corporate bonds, Irish publicly-traded equities, Irish private equity, Irish venture capital and Irish property.

By rather having a complete legislative bar on domestic assets, the commissioners would be protected from pressure to invest at home. Unfortunately, the Act does not incorporate this restriction.

3.2 An Ethical Investment Policy?

The legislation requires the Fund to maximise returns according to strictly commercial criteria. As such, there is no bar on the Fund holding shares in tobacco or alcohol companies or in firms engaging in environmentally-unfriendly activities. If there are to be ethical constraints on investment policy, these should be specified in the legislation: it would be undesirable and indeed illegal for the Fund's Commissioners to make such essentially political decisions. The lack of a political debate on this question may prove to be unwise, if lobbying by activist groups places pressure on the government to amend the legislation in future years.

3.3 Budgetary Implications

Payments into the Fund have no impact on the General Government Surplus (GGS) figures: it is merely a transaction within the general government sector. The converse is that alternative strategies --- such as paying down the public debt --- would improve the GGS surplus. During the current period of booming tax revenues, it may well be an astute domestic political strategy to reduce the headline GGS surplus figure by making

payments into the Fund rather than allocating the revenues to alternative uses. However, this strategy is potentially a source of confusions to external assessors that employ the GGS surplus as the indicator of fiscal prudence.

The commitment to make payments into the Fund regardless of budgetary conditions will place pressure on the Minister of Finance during tough fiscal times. Consider a scenario in which Ireland is just hitting the 3 percent deficit/GDP ratio that is red marked in the Growth and Stability Pact: the government may be forced into larger tax increases or more severe public expenditure cuts by the fact that the Fund payment is ring-fenced. Indeed, this is the very reason why the commitment was written into the legislation but it will be interesting to see if this part of the Act will remain unchanged throughout the projected life of the Fund.

There is a very important second dimension to the relation between the Fund and the budgetary position. Only the investment income and not the capital gains/losses generated by the Fund is counted as part of the GGS.

There are two problems here. First, investment income will inevitably fluctuate on a year-to-year basis, depending on shifts in world interest rates, equity dividend payments and currency movements. This will induce instability in the GGS, which may be especially costly if it leads to a violation of the 3 percent deficit rule.

Second, the measured GGS will be larger, the more returns on the Fund take the form of investment income rather than capital gains. In this way, the Fund's Commissioners may face implicit pressure from a government that is trying to improve the GGS numbers to bias its portfolio towards income-generating assets.

3.4 The One Percent Rule

According to the legislation, one percent of GNP will be paid into the Fund each year. This sum is intended to only partially pre-fund anticipated future pension liabilities.

The one percent rule has the characteristic of an “automatic stabiliser”: more will be paid into the Fund when the economy is growing quickly than during a slowdown. It is an open question whether this is an *optimal* rule in terms of cyclical stabilisation. In Ireland, tax revenue elasticities with respect to GNP are typically greater than unity. On this basis, a rule that specified a greater percentage would be paid into the Fund during upturns and a smaller percentage during downturns may have better stabilisation properties. However, the one percent rule has the considerable merits of simplicity and clarity. Moreover, a cyclically-adjusted rule would require a reliable decomposition between cycles and trends in output growth. This is a notoriously difficult problem, especially for a small open economy with an elastic international supply of labour and capital.

3.5 The Central Bank Investment Fund

The government already has a very substantial investment fund. This is the fund consisting of the former reserve assets of the Central Bank of Ireland.⁶ Since Ireland joined EMU in 1999, its need to hold foreign exchange reserves has sharply diminished and the financial assets of the Central Bank now far exceed the amount it is required to hold under its EMU obligations as a member of the European System of Central Banks. The Central Bank assets generated net interest income of €240 million in 1999 and unrealised capital gains of €648.2 million.⁷ As such, the size of the Central Bank fund will be much larger than the new Fund, at least for the next few years.

Since the “excess” funds of the Central Bank are not required for currency management, the presumable objective is to conditionally maximize the investment return on these funds.⁸ As such, the goal is quite similar to that of the new Fund, with the potential exception of a different investment horizon: the Central Bank remits investment income

⁶ These assets have been accumulated through seigniorage and capital gains on investments.

⁷ See Central Bank of Ireland Annual Report 1999.

⁸ Indeed, this is one of the clear and unambiguous gains from EMU: a decline in the need to hold state assets in the form of low-return liquid positions. There are some ECB constraints on the management of these funds.

to the Minister of Finance on a contemporaneous basis whereas there is no drawdown from the Fund until 2025.

From a consolidated government balance sheet perspective, it would be optimal to coordinate the investment strategies of the Central Bank and the new Fund. One option is to transfer the Bank's excess assets to the new Fund. However, that step would eliminate one source of current income for the Minister of Finance. Another is for an exchange of information between the Bank and the new Commission or the NTMA: however, it is not clear which should be the "lead" party in this relationship. A coherent policy statement on the desired role of the Bank's excess assets is required to properly address these questions. The impending reorganisation of the Central Bank may provide a useful opportunity in this regard.

3.6 Social Welfare Pensions versus Public Sector Pensions

The objective of the Fund is to partly pre-fund future social welfare and public sector pension liabilities. The legislation leaves open the possibility of creating two separate Funds in the future to reflect these two functions. In general, there are clear distinctions between the two types of pension liabilities. The social welfare pension is not related to earnings and is essentially a minimal anti-poverty measure. As such, maintaining an adequate social welfare pension (at least as currently designed) will plausibly always be the responsibility of the state and the social welfare pension fund is essentially just a means for the government to efficiently smooth revenue streams.

The pensions of public sector workers rather are much more similar to a standard defined-benefit private pensions scheme. For the latter group, one can think of alternative ways to pre-fund pensions and to organise the management of the fund. For instance, a defined contribution scheme could be envisaged for public sector workers and even individual retirement accounts, with each employee making a personal choice re risk/return tradeoffs and the design of her personal retirement fund. Even under a model in which the public sector employee fund were collectively invested, its managers would

be much more directly accountable to the public sector workforce, which is a different design to the current set-up for the Fund.

4. The Investment Strategy for the Fund

The objective of the Fund is to meet

“as much as possible of the cost to the Exchequer of social welfare pensions and public sector pensions to be paid from the year 2025 until the year 2055 ...” (section 18 (1) of the National Pensions Reserve Fund 2000).

To this end, the Commission has been granted

“a strictly commercial investment mandate for the Fund with the objective of securing the optimal return over the long-term subject to prudent risk management” (Department of Finance 2000b).

In this section, we analyse some issues concerning the optimal investment strategy for the Fund.

4.1 The Four Stages of the Fund’s Life Cycle

We can think of the Fund as evolving through four stages. The first stage is the initiation phase during which the Fund invests the current cash pile. There are potentially some timing issues as to how quickly the Fund attains its “optimal portfolio” but this implementation problem is beyond the scope of this paper. The second stage is the pure accumulation phase running until 2025. During this interval, there will be no withdrawals from the fund. The third stage is the 2025-2055 period during which there will still be new inflows into the fund but also annual withdrawals. The fourth and final stage is the

post-2055 period in which no further contributions are made and the Fund will be run down over time.⁹

In thinking about the appropriate investment strategy of the Fund, I will focus on the second and third stages of the Fund's life cycle.

4.2 The Second Stage

Finance theory broadly distinguishes between three asset classes: cash, bonds and equity. Bonds and equity can be jointly considered the set of "risky" assets.¹⁰ One decision facing an investor is the share of the portfolio that should be allocated to risky assets. The existence of an "equity premium" --- higher average returns on equity than on bonds --- also means that the investor must also decide the composition of the risky part of the portfolio between equity and bonds.

Recent developments in portfolio theory suggest that an investor can afford to be more aggressive, the longer is the investment horizon (Barberis 2000, Campbell and Viceira 2000, Viceira 2001). One reason is that equity returns are less volatile, the longer is the investment horizon. Another is that financial assets form a smaller part of total wealth (including human capital) the further way is an investor from retirement, so that such an investor can afford to be more aggressive in accepting risk in return for high potential returns. As the financial portfolio grows in importance in total wealth, the optimal investment strategy becomes less aggressive over time.

With respect to the public equity allocation, a natural benchmark is for the Fund to "hold the world". What would justify deviations from this neutral strategy?

⁹ The legislation allows for the end-date to be extended beyond 2055 but we take it as fixed for convenience.

¹⁰ The absence of inflation indexation and time variation in the real interest rate means that cash is not strictly risk-free but we adopt the conventional terminology here. The riskiness of cash is dealt with later in this section.

From a macroeconomic viewpoint, one may wish to take into account the co-variation of equity returns with some large and identifiable macroeconomic risks to the Irish economy. For instance, it is plausible that the Irish output growth positively depends on economic developments in our major trading partners.¹¹ As such, to hedge against the risk of slow growth at home, it may be wise to underweight our trading partners in the design of the Fund's portfolio.¹²

By similar logic, the portfolio weights that are allocated to those industrial sectors in which Ireland specialises may need some adjustment. It is actually ambiguous whether these sectors should be over-weighted or under-weighted in the Fund's portfolio.¹³ Put differently, is what is good for Intel also good for Ireland? For instance, if Intel discovered a more attractive location and shifted production out of Ireland, the fortunes of Intel and Ireland would move in opposite directions. In this case, a natural hedge is for the Fund to own Intel stock. On the other hand, a negative technological or competitive shock that hurt Intel and also caused it to contract production in Ireland would see the fortunes of Intel and Ireland moving in the same direction. Here, the appropriate hedge is to underweight or even go short in Intel's equity. Assessing the balance of risk requires detailed sectoral- and firm-level analysis: this may be an interesting avenue for future research in modelling the optimal portfolio for the Fund.

Beyond these systematic macroeconomic and sectoral risks, there may also be some scope for active management to exploit some potential "gaps" in the market. Here, it is important to take into account the impact of active management strategies on overall portfolio risk by understanding the correlations of the returns on actively-managed stocks with other components of the portfolio.¹⁴ To some extent, this risk analysis can be

¹¹ For instance, there is evidence that international diffusion of productivity innovations follows trade patterns (Coe and Helpman 1995). FDI and migration patterns provide other mechanisms that link productivity growth across nations.

¹² Honohan and Lane (2000b) however show that our trading partners are actually heavily represented in Irish investment portfolios. In particular, the UK is strikingly over-represented. That paper discusses the potential explanations for this apparent sub-optimality. See also Lane (2000b) on Irish international financial diversification.

¹³ See also Davis and Willen (2000).

¹⁴ Returns should of course be measured net of the higher fees charged by active managers.

conducted using historical correlation patterns. However, historical correlation matrices are of limited value during periods of market illiquidity and with respect to shares in entirely-new sectors (such as internet stocks).¹⁵ Moreover, it is difficult to work out potential covariation patterns between publicly-traded assets and more illiquid assets such as private equity, venture capital and property investments.

Finally, a long horizon also means that cash is a risky investment, since it must be reinvested at uncertain real interest rates. Accordingly, the conservative part of the portfolio should largely take the form of long-term bonds rather than cash, since this hedges against the risk of a decline in real interest rates (Campbell and Viceira 2001).

4.3 The Third Stage

During the third stage, the Fund will be making contributions to the fiscal budget to ease the costs of the increased pension burden that is expected after 2025. As such, the investment horizon will naturally be shorter and the mix of the fund will shift away from equities and towards bonds and cash. However, the fact that the peak of the Irish pensions burden is not expected until around 2050 means that the investment horizon should actually remain quite long, with only a gradual shift out of equities in the initial years after 2025.

However, the short-term co-variances between Irish fiscal variables and asset returns may take on greater importance in portfolio selection during this third stage. Ideally, the payout from the Fund to the Exchequer should stabilise the fiscal positions, with a larger payout being made during recessions than in expansions. This can be best achieved if the Fund's return negatively covaries with domestic tax revenues and positively covaries with domestic public spending needs.¹⁶

¹⁵ See Shleifer and Vishny (1997) and Lowenstein (2000).

¹⁶ See Lloyd-Ellis and Zhu (2000).

4.4 Some Empirical Analysis

In this subsection, we conduct some empirical analysis that illustrates the potential importance of taking into account the co-variation between domestic macroeconomic performance and international asset returns.

In Table 3, we regress Irish output growth on international equity returns and bond yields.¹⁷ Column (1) just includes the return on the MSCI world equity index (EQW) and a GDP-weighted average world bond yield (BW).¹⁸ This simple specification does quite well in terms of “explaining” 30 percent of the movement in Irish output. Importantly, Irish growth negatively co-varies with the world equity return and world bond yield: holding positive positions in these financial assets provides a hedge against Irish output risk.

In columns (2)-(5), we add additional country-level asset returns.¹⁹ The addition of the UK and US in columns (2) and (3) do improve the fit of the regression and the most striking finding is that, holding fixed world asset returns, there is positive co-variation between UK and US financial returns and Irish growth. The implication is that hedging would require us to underweight UK and US assets relative to their importance in world financial indices.

In columns (4) and (5), we see that there is essentially no relation between German asset returns and Irish growth performance but that addition of Japan improves explanatory power to some extent. Here, the point estimate indicates that Irish growth negatively co-varies with the Japanese bond yield, suggesting that Japan should perhaps be overweighted in the bond component of the Fund.

¹⁷ These asset returns are adjusted for currency depreciation and inflation to obtain the real returns that matter to Irish investors. See also Davis et al (2001).

¹⁸ The bond yield is on 10-year government bonds and the world index includes the United States, Japan, Germany and the United Kingdom. Ideally, one would like to use the total bond return but these data were not to hand.

¹⁹ Limited degrees of freedom means that we add countries one-at-a-time.

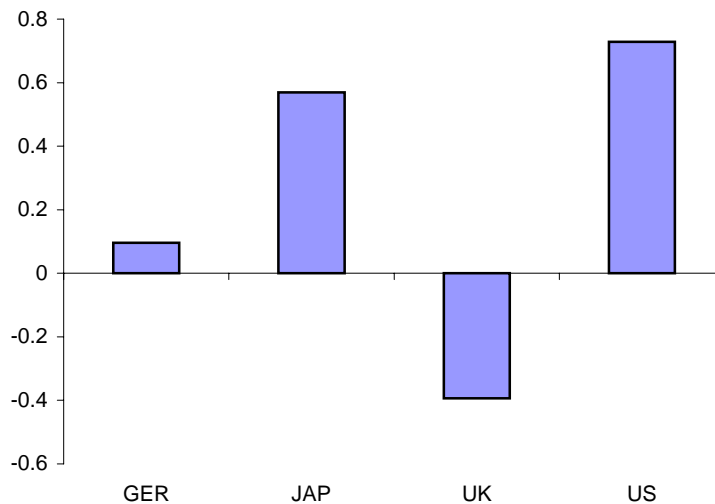
Table 3. Irish Growth and International Asset Returns

	(1)	(2)	(3)	(4)	(5)
EQW	-0.039 (1.67)	-0.079 (2.82)	-0.141 (2.5)	-0.052 (1.97)	-0.133 (2.41)
BW	-0.84 (3.69)	-0.88 (2.8)	-1.34 (3.33)	-0.568 (1.94)	-0.51 (1.74)
EQUK		0.041 (3.0)			
BUK		0.046 (.3)			
EQUS			0.093 (1.61)		
BUS			0.43 (1.35)		
EQGER				0.005 (.27)	
BGER				-0.49 (1.3)	
EQJAP					0.089 (1.54)
BJAP					-0.335 (1.23)
Chi-Sq		21.88 (.001)	13.64 (.001)	3.91 (.142)	4.8 (.091)
adj.R2	0.3	0.33	0.39	0.27	0.38

Note: Absolute values of t-statistics in parentheses. Standard errors are HAC-corrected, using the Newey-West procedure. Chi-Sq is the test of the joint significance of the country equity return and bond yield (p-value in parentheses).

The results in Table 3 are clearly only a crude first step in thinking about the relation between international financial returns and Irish macroeconomic performance. It would be interesting to extend this analysis to look at the relation between asset returns and Irish fiscal variables (aggregate and subcomponents of public expenditure, tax revenue and the fiscal deficit) and consider a broader array of asset returns. The historical returns are clearly also only a limited guide to the future: in particular, Ireland's membership of EMU means that the co-variation of Irish domestic variables and currency fluctuations is likely to be quite different.

Figure 4. "Efficient" Foreign Portfolio Shares



Source: Honohan and Lane (2000b).

Honohan and Lane (2000b) provide an alternative empirical approach. In that paper, the authors calculated the matrix of return correlations over 1970-97 between Irish national income (NNI) and historical stock market returns in the United Kingdom, the United

States, Germany and Japan.²⁰ On the assumption that the return correlations remain stable, the authors were then able to compute the geographical composition of the mean-variance efficient portfolio.²¹ Figure 4 reveals that the efficient portfolio would not be heavily weighted in UK and German assets: on the contrary, it would involve negative holdings (short sales) of UK stocks and near-zero holdings of German stocks in order to finance higher holdings of Japanese and US assets. Again, the mean-variance calculations clearly are not an adequate basis for portfolio decisions but the exercise reinforces the point that the co-variance between domestic macroeconomic and fiscal variables and financial returns should be incorporated into the design of the Fund's portfolio.

In the foregoing, we have examined country-level returns. For the reasons noted above, it would be useful to also examine the co-movement between domestic macroeconomic and fiscal variables with sectoral returns --- for instance, what is the covariance between Irish tax revenue and the global high-technology sector?

5. The Management of the Fund

In this section, we discuss some corporate governance and operational issues in the management of the Fund. Box 5.1 at the end of the section contains a case study of the Norwegian Government Petroleum Fund which also provides some useful lessons for the design of the new Fund.

Under the legislation, a Commission will be appointed to oversee the Fund. It will be responsible for setting the investment strategy for the Fund. The NTMA will be the manager of the Fund and its chief executive is ex-officio also a member of the

²⁰ See also Bodie and Merton (2000).

²¹ The calculation also requires some assumption about mean and variance of future returns. We experimented with various assumptions here, including (i) the use of historic values, (ii) imposition of common mean and variance across countries, (iii) increasing the assumed mean return for Ireland to reflect home preference. While different assumptions do change the efficient portfolio, the qualitative conclusions were unaffected.

Commission. The Commission will *perform* all its functions through the Manager and it is also free to *delegate* any of its functions to the Manager. The NTMA has been initially appointed for a ten-year period: after that, the management contract will be five years in duration and the Commission will be free to appoint another agent as manager of the Fund. The legislation requires the Commission to make an annual report to the Minister of Finance. The Oireachtas Committee on Public Accounts will also be free to interview the Chairman of the Commission and the Chief Executive of the Manager.

This structure has the considerable advantage of avoiding the need to establish an all-new agency to manage the Fund. However, its formal organisation has some debatable features. First, the Commission does not have freedom in the first ten years in its choice of manager. It has no direct power to fire the chief executive of the Fund, since the head of the NTMA is appointed by the Minister of Finance. Moreover, the head of the NTMA is also a member of the Commission: as the only “executive” member, he will have an extraordinarily influential position within the Commission. The special status of the NTMA head is reinforced by the fact that the Manager has been appointed for ten years whereas the longest contract for the other Commissioners is only five years.²²

The option to delegate any (all) functions to the manager further enhances the potential power of the manager. For instance, the legislation could permit the NTMA to set its own benchmark, if the Commission delegated this function to it. Standard corporate governance principles suggest that this structure may be unstable. Indeed, it is hard to see how the NTMA could be replaced even at the end of its initial contract since the advantages of incumbency are potentially very high under the legislation. Still, the option to change managers will presumably curb to some extent incentives to “empire build” on the part of the NTMA.

In managing the Fund, it is anticipated that the NTMA will employ an array of external managers, especially in investing the equity component of the Fund. Keeping a lid on

²² The Chairman is appointed for five years. The ordinary members of the Commission will be appointed for three or four years.

management fees will be an important factor in determining the Fund's overall net return so that it is to be hoped that intense competition among external managers will shave fees to a minimum. The instruction and monitoring of the external managers will be a major responsibility for the NTMA.

The optimal reporting frequency on the performance of the Fund is an interesting problem. The legislation mandates an annual report but the Commission could voluntarily release information at a higher frequency (say, quarterly) if it wished. On the one side, more frequent reporting would promote transparency and openness. On the other, at least in its early stages, the projected investment horizon for the Fund is twenty-five/fifty-five years such that high-frequency reporting may distort the behaviour of the Fund by placing the manager under pressure to produce high short-term returns, even at the expense of worse long-term performance.

In general, the long-term investment horizon makes proper evaluation of the Fund's performance a very difficult technical question. Evaluation really has three parts: (a) is the benchmark portfolio optimally designed?; (b) are deviations from the benchmark justifiable?; (c) has the operation of the fund been efficient and cost effective? Part (a) is at least initially the responsibility of the Commission; part (b) is the responsibility of the manager, if it is given the freedom to depart from the benchmark; and part (c) refers to the operation of both the Commission and the manager.

Box 5.1 A Case Study: Norway's Government Petroleum Fund

Norway established the Government Petroleum Fund (GPF) in 1990 to invest part of its significant oil revenues.²³ The objective is to accumulate assets that will generate investment income for the government in future years, when oil revenues decline and the burden of rising pension expenditures becomes more severe.²⁴

The Norwegian Ministry of Finance directs the GPF's investment strategy, with the Norwegian Central Bank charged with its management. The resources of the Ministry of Finance means that it is not reliant on the manager for advice on strategy, providing a high degree of independence between the "trustees" and the "manager". The Ministry of Finance sets the benchmark portfolio: fixing the allocation between equity and fixed-income instruments and the geographical spread within each asset class. The manager has some limited freedom to depart from this benchmark but the actual portfolio may never deviate from the benchmark portfolio to the extent that annualised expected tracking error exceeds 1.5 percentage points.²⁵

None of the capital of the GPF is invested in Norway. As such, the politicisation problem in setting and executing investment strategy is eliminated.²⁶ To further avoid control problems, the GPF can hold only a maximum of 3 percent of the share capital (or of the voting shares) in any one firm.

²³ See the elaborate and detailed web site for the Norwegian Petroleum Fund at http://www.norges-bank.no/english/petroleum_fund

²⁴ The GPF is not formally a pension fund but the rising pensions burden is cited as a motive for its establishment.

²⁵ Expected tracking error is defined as the expected value of the standard deviation of the difference between the annual return on actual investments and the return on the benchmark portfolio. This means that, over time, the difference between the returns on the actual portfolio and the benchmark portfolio will be less than 1.5 percentage points in two out of three years. The tracking error is calculated using the BARRA risk-management model.

²⁶ However, there is a vigorous political debate in Norway about the trade-off between current consumption and accumulating assets for the future.

6. Conclusions

This paper has reviewed some key issues in understanding the role to be played by the new National Pensions Reserve Fund. In particular, we have emphasised the importance of avoiding the politicisation of investment policy. To this end, it is regrettable that the Act failed to prohibit investment in domestic assets.

The long horizon of the Fund suggests that it initially should be largely invested in equities. Within the equity allocation, it is desirable to take into account the pattern of national and sectoral co-variation with Irish macroeconomic and fiscal variables, since the goal of the Fund is to supplement the Irish public finances. Much more research on this question is required. Comprehensive risk assessment of the actively-managed components of the Fund is also highly important but this is a very difficult task, since evaluation cannot solely rely on historical return correlation matrices.

Finally, we have also raised some questions about the organisational structure of the Fund. In particular, the relation between the Commission and the Manager is quite fluid in the legislation. It will be interesting to observe how the operation of the Fund evolves over time.

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