University of Toronto

OFFICE OF THE VICE-PRESIDENT, BUSINESS AFFAIRS

Memorandum to: Business Board

From: Felix Chee

For: Meeting of January 21, 2002 Agenda Item: 3(b)

Item Identification: **Approval of the Expendable Funds Investment Pool (EFIP) Background Paper as a policy document**

Sponsor: Felix Chee, Vice-President, Business Affairs

Jurisdictional Information

Business Board approves all policies with respect to financial programs and transactions.

Previous Action Taken

On November 8, 2000, the Business Board approved, as addenda to the Service Agreement between the Governing Council of University of Toronto and the University of Toronto Asset Management Corporation, the Expendable Funds Investment Pool (EFIP) Background Paper and attachments.

Action Sought

That the Expendable Funds Investment Pool (EFIP) Background Paper be approved as a policy document for the management of the investment of the University's expendable funds.

Highlights

There are no changes to the document.

The objective of the recommendation is to maintain the document in force but as a separate document, and not as addenda to the Amended and Restated Service and UTAM Personnel Agreement.

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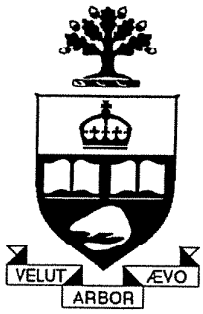

UNIVERSITY OF TORONTO

EXPENDABLE FUNDS INVESTMENT POOL (EFIP)

BACKGROUND PAPER

UNIVERSITY OF TORONTO

EXPENDABLE FUNDS INVESTMENT POOL (EFIP)

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TABLE OF CONTENTS

UNIVERSITY OF TORONTO

EXPENDABLE FUNDS INVESTMENT POOL (EFIP)

BACKGROUND PAPER

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1. DESCRIPTION OF EXPENDABLE FUNDS

The EFIP constitutes all University expendable funds placed into one common pool for investment purposes. This is done by consolidating, on a daily basis, all funds in University bank accounts, regardless of their origin. Expendable funds comprise every dollar held by the University that are not endowment funds. The major categories of funds are, but are not limited to, the following:

- Operating budget funds (including all sources of income such as government grants, student fees, and other income)
- Ancillary enterprise funds
- Capital construction funds
- Donations
- Research grants and other related funds
- Trust funds

In the aggregate, the pattern of expenditures lags behind the flow of incoming funds. As a result, the University is regularly in a positive cash flow position. Although a typical incoming dollar is appropriated and spent within a relatively short period of time, in the aggregate, a large consolidated money balance remains as the cycle continues. This creates an ongoing "core balance" of funds that typically never goes below a relatively high threshold.

Over the last three years, the market value of EFIP assets has ranged between $260 million and $560 million. The balance as at the end of September 2000 was $560 million. The last time EFIP was under $300 million was in August 1998 when it was about $275 million. Since 1996, EFIP has not been below $275 million and the fund has not been below $200 million since 1995. Therefore, although all EFIP funds are slated for expenditure, there is a large ongoing core balance of money on hand at all times.

This core balance could and should be invested with a longer time horizon, which would imply a higher degree of risk and in strong markets produce higher returns. In weak or poor performing markets, this could result in poorer return than cash equivalent returns and even losses. One must weigh, therefore, the potential for higher returns against the probability of lower returns in weak markets when considering a more aggressive investment strategy and asset mix for a portion of the expendable pool of funds.

2. INVESTMENT POLICY, RISK TOLERANCE, AND OBJECTIVES FUND STRUCTURE

2.1. Short-Term Funds

There must be a cash equivalent portion of EFIP maintained in assets with a duration comparable to 91-Day T-Bills, recognizing that these funds may be used immediately or sometime within a 12-month horizon. An analysis of past cash flow patterns indicates that maintaining 15% of the average balance of the fund over a one year operating cycle in cash or cash equivalents is sufficient to meet short-term demands. These funds will be invested in vehicles that offer daily liquidity with virtually zero probability of loss.

The next component of EFIP is a 25% allocation to short-term bonds. This component takes on the role of a cushion between the higher risk core and the lowest risk cash assets. This strategy is designed to maintain the purchasing power of the assets over horizons of one to two years. While the probability of a loss exists, it is expected that episodes of price declines would tend to be small, infrequent, and of short duration. Consequently the liquidity of this component of EFIP is quite high and it could easily be used to meet expenditure requirements without impairing the value of the fund.

Thus, the cash equivalent and short-term bond component will comprise approximately 40% of the EFIP. This provides a wide margin of safety in that historical cash flow patterns have indicated there is virtually no chance that more than 50% of EFIP would ever need to be liquidated in the course of a year.

2.2. Long-Term Core Funds

Based on the nature of the cash flows as well as the risk tolerance of the University, it is proposed that 60% of the EFIP be invested with a longer-term horizon and that approximately half of this amount will be invested in the University's Long Term Capital Appreciation Fund (LTCAP), formerly known as the Consolidated Investment Pool (CIP). The University understands the risks inherent in this more aggressive investment strategy.

While LTCAP is an appropriate investment vehicle for long-term funds, there must be a high degree of certainty that EFIP funds invested in LTCAP would never require an urgent, significant or unplanned liquidation in a period of less than five years. The five-year investment horizon is important, in that it is generally considered the minimum investment horizon required for investments in the equity markets. Ideally, the horizon would be considerably longer than five years. The purpose of this investment is to provide for a higher rate of return and avoid the opportunity cost associated with holding large cash and cash equivalent balances. It is therefore recommended that approximately 30% of the market value of EFIP at the peak of its annual cycle, that is the September 30 market value, be invested in LTCAP. It is recognized that at the low point of the cycle, typically in July of each year, that the proportion of EFIP invested in the LTCAP could rise to as high as 40% of the total EFIP market value. This is not a concern, however, because based on historical cash flow patterns, incoming cash flows over the next two months will reduce this percentage down to the 25% to 30% range.

In addition to the EFIP investment in LTCAP, approximately 30% of the market value of EFIP at the peak of its annual cycle in September should be invested in a diversified equity portfolio which could include pooled funds, segregated accounts, exchange-traded funds or equivalents, absolute return/market neutral strategies, or equivalent exposure to synthetic products. The purpose of a separate investment pool for the core component of EFIP, in addition to the LTCAP, is to enable periodic rebalancing without adversely impacting LTCAP. Should the value of this pool grow significantly, it would require rebalancing to a lower equity exposure in order to maintain the appropriate risk profile. This component of the fund should be appropriately diversified in order to

mitigate losses. Absolute return strategies play an important role in this mix, as they are structured to provide nominal returns of around the 91-Day T-Bill rate plus 250 basis points, with very low volatility. Thus they will not participate in large equity market rallies but can potentially provide attractive returns when equities are performing poorly.

This asset mix suggests that at the peak of the EFIP cycle, 60% will be invested in core equity strategies involving a combination of the LTCAP and a segregated pool. As discussed earlier, this percentage allocation to equity will fluctuate as the EFIP balance oscillates throughout the annual operating cycle. Therefore a 60% allocation to the core using a combination of the LTCAP and a segregated pool could become as high as 80% of EFIP at the low point of the operating cycle. For example, as of September 30, 2000 the market value of EFIP was $561.0 million. A 60% allocation to core suggests that we should have a $336.6 million investment split between the LTCAP and the segregated equity component. At the low point in calendar 2000, July, the EFIP market value was $450 million, which implies that this $336.6 million investment in core would represent 75% of total EFIP. Thus it is clear that although the 60% allocation to core is based on the peak in the operating cycle, the percentage of EFIP allocated to core will increase as funds are drawn down during the operating cycle.

It should also be recognized that one-time, extraordinary contributions to EFIP could take place for a variety of reasons. These one-time contributions will be evaluated on a case-by-case basis, and the funds will be invested based on the projected investment horizon as well as all other unique and special circumstances

2.3. Risk Tolerance

While history suggests that a diversified equity pool can reasonably be expected to achieve an average annual nominal rate of return of 8% to 10% over long periods of time, there is a probability in the short-run that the market value of equities could decline by 10% or more. For example, over the past twenty years, there have been six occurrences where the monthly decline of the S&P 500 was between -7.0% and -23.0% and two occurrences where the decline was between -13.0% and -23.0%. Likewise, over the past twenty years, there have been eight occurrences where the monthly decline of the TSE 300 was between -8.0% and -24.0% and four occurrences where the monthly decline was between -12.0% and -24.0%. While investments will be structured to mitigate these types of declines through diversification, there is no guarantee that they will never take place. Consequently, it is recognized that a loss of this magnitude could take place without precluding the University from meeting budgeted expenditures in any given year.

2.3.1. Impact of Risk Profile on Operating Budget

If we assume an average EFIP balance of $400 million, and use this figure as a model, it is possible to quantify the impact of a catastrophic decline in equity prices, which would bring about a loss of 10% in EFIP. Based on the proposed strategy, the $400 million balance would be invested as follows:

Money Market / Overnight Cash	$60 million
Short-Term Bonds	$140 million
LTCAP	$100 million
Equity Pool	$100 million

While the probability is low, a one time monthly drop of 30% in the value of the LTCAP on a $100 million investment would amount to a loss of $30 million. Assuming another $100 million of this $400 million EFIP balance is invested in a diversified equity pool, a one time drop of 30% would result in an additional loss of $30 million. This could result in a total loss of approximately $60

million all in one month. While there would still be adequate liquidity to meet any monthly cash outflows based on historical patterns, the ultimate ability to continue to meet monthly expenditures would be predicated on a recovery in the equity markets. Consequently, it is imperative that these funds are not liquidated following a precipitous drop in equity prices, as selling into the lows of the market would likely have long term negative consequences.

To emphasize this point, there was a considerable rebound in the TSE 300 in the six months following five of the eight monthly declines of greater than 8.0%, which occurred over the past 20 years. In addition, seven of these eight precipitous monthly drops were followed by a major rebound within one year (see Addendum #3). Contrasting this experience relative to the S&P 500, all six of the monthly declines of greater than 8.0% over the past 20 years were followed by a six-month and one-year recovery.

The model below illustrates the impact on the operating fund at two levels of investment return:

	Total return of 10% for the year		**Severe negative return of 10% for the year**	
	(in millions)		(in millions)	
EFIP long term CORE investments	$ 200		$ 200	
EFIP short/medium term investments	200		200	
Total EFIP Investments	$ 400		$ 400	
Return from long term investments	30	+15%*	(60)	- 30%
Return from short/medium term investments	10	+ 5%	20	+ 10%
Total return from investments	40	+ 10%	(40)	- 10%
Income based on accounting smoothing policy				
Expected 9% return on long term investments	$ 18		$ 18	
1/4 of the difference between actual & expected (LT)	3		(19.5) #	
Return on short/medium term investments	10		20	
Total income	31		18.5	
Less distribution to other funds	(12.4)		(7.4)	
Operating fund income	$ 18.6		$ 11.1	($7.5 million lower)

* Long term expected average return is 9%

\# $58.5 million to be amortized over the following 3 years offset by any amortization of future differences between actual and expected return.

The University follows an accounting policy of smoothing the positive or negative differences between the long term average expected 9% return and the actual return over a four year period, as approved by external auditors. The impact of any positive or negative return is spread over four years, minimizing the impact to the operating fund.

3. Performance Benchmarks and Rate of Return Objectives

Each component of the fund will have the following performance benchmarks:

Over-night and Short-Term Funds:	91 Day T-Bills
Short-Term Bonds:	Scotia Capital Short-Term Bond Index
Investments in LTCAP:	LTCAP Composite Benchmark
Canadian Equities:	TSE 300
U.S. Equities:	Russell 3000
Non-North American Equities:	MSCI EAFE
Absolute Return Strategies:	T-Bills + 250 basis points

It is expected that the fund over any four-year period, will achieve an annualized rate of return that exceeds the following composite benchmarks:

91 Day T-Bills	15%
SC Short-Term Bond Index	25%
TSE 300	5%
Russell 3000	20%
MSCI EAFE	20%
91 Day T-Bills + 250 basis points	15%

4. STATEMENT OF AGREEMENT

The University agrees under this arrangement, that it will not make sudden withdrawals of the EFIP investment in the LTCAP. Furthermore, withdrawals will be limited to $25 million in any given year, any withdrawal in excess of this amount must be mutually agreed upon by the University of Toronto Asset Management Corporation, and the Chief Financial Officer of the University of Toronto.

In signing Addendum #1, this agreement becomes an addendum to the Service Agreement between the University of Toronto and the University of Toronto Asset Management Corporation.

On behalf of the University:

R. Birgeneau, President

R.G. White, Chief Financial Officer

Accepted by UTAM:

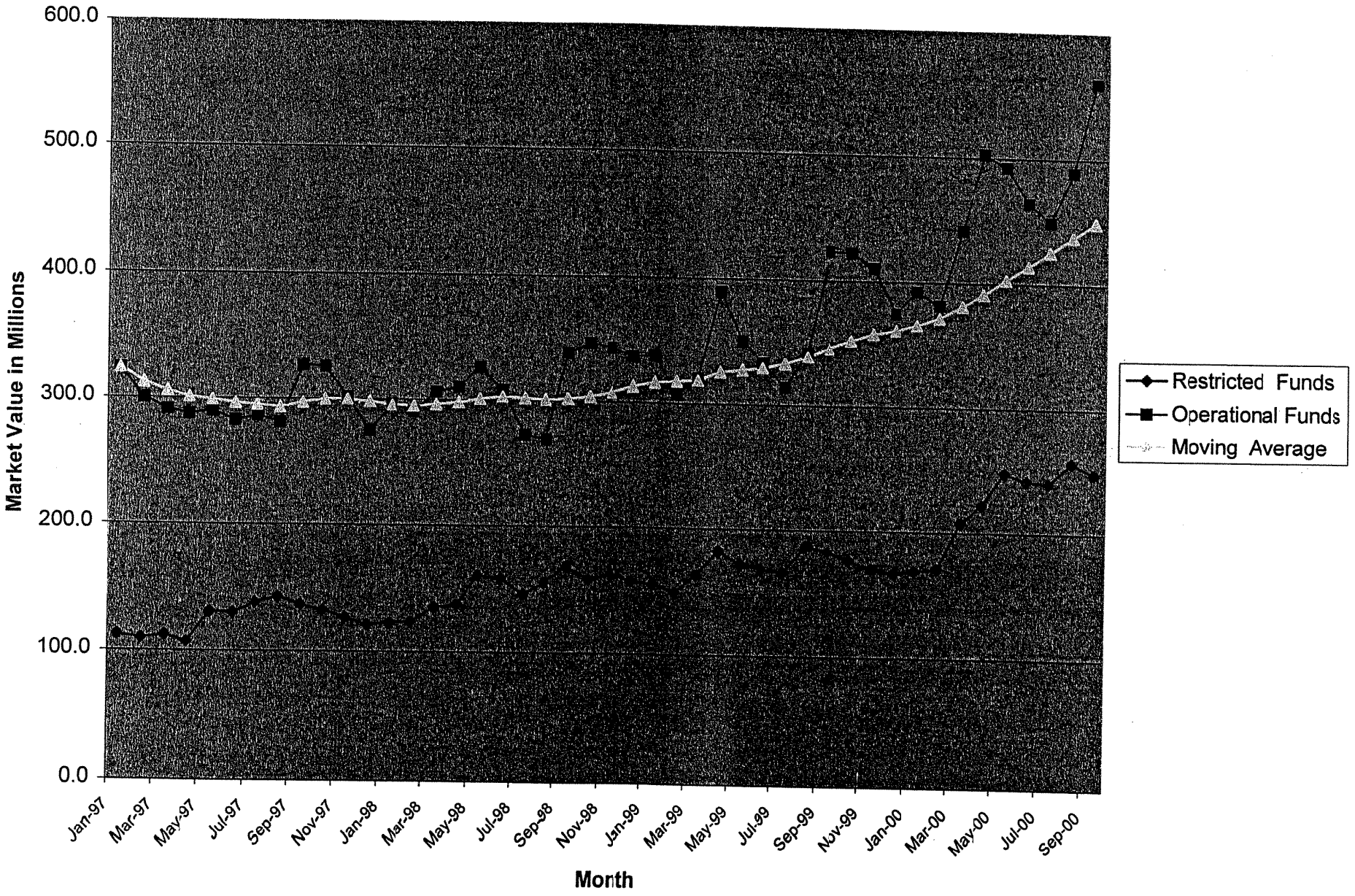
R. Korthals, Chair, Board of Directors

D. Lindsey, President & CEO

Addendum #1

Expendable Funds Investment Pool
Total Investments

Addendum #2



Addendum #3

TSE 300 - Historical Negative Return Analysis
September 1979 - September 2000

Date	One Month Return %	6 Months After %	1 Year After %
31-Oct-79	-9.85	18.40	41.85
31-Mar-80	-18.02	25.73	29.79
30-Sep-81	-13.47	-15.69	-14.94
29-Jan-82	-8.56	-20.99	-13.69
30-Jun-82	-10.30	43.26	79.03
30-Oct-87	-22.63	10.62	12.46
30-Apr-90	-8.20	-7.77	3.83
31-Aug-98	-20.21	14.14	26.04

S&P 500 - Historical Negative Return Analysis
September 1979 - September 2000
(U.S. $ terms)

Date	One Month Return %	6 Months After %	1 Year After %
31-Mar-80	-10.18	22.89	33.22
30-Sep-86	-8.54	26.10	39.13
30-Oct-87	-21.76	3.79	10.79
30-Nov-87	-8.53	13.83	18.85
31-Aug-90	-9.43	13.80	22.95
31-Aug-98	-14.58	29.36	37.96