THE LINKAGE BETWEEN EMPLOYEES PROVIDENT FUND AND MALAYSIA ECONOMIC GROWTH

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ABSTRAK

Kumpulan Wang Simpanan Nasional (KWSP) sering dianggap sebagai sejenis sekuriti sosial bagi membekalkan bantuan kewangan selepas bersara. Namun begitu dari sudut lain, KWSP memainkan peranan sebagai modal untuk merangsang pertumbuhan ekonomi. Teori ekonomi dan keputusan empirikal mencadangkan bahawa dana sara boleh menyumbang kepada pertumbuhan ekonomi secara tidak langsung melalui perkembangan pasaran kewangan dan oleh kesan ekonomi melalui penglibatan korporat. Walau bagaimanapun, penyelidikan tentang perkembangan sumbangan langsung KWSP kepada pertumbuhan ekonomi amat jarang dijalankan. Dalam projek ini, fungsi pengeluaran Cobb-Douglas telah diubahsuaikan, di mana aset KWSP sebagai faktor sampingan untuk menyiasat hubungan langsung antara aset KWSP dan pertumbuhan ekonomi. Kaedah ekonometrik yang bersesuaian telah digunakan untuk menguji dataset Malaysia merangkumi dari tahun 1980 sehingga tahun 2005. Keputusan didapati tidak berjaya untuk menyokong idea bahawa terdapat hubungan langsung antara aset KWSP dan pertumbuhan ekonomi.

ABSTRACT

Employees' Provident Fund (EPF) often views as a type of social security to provide financial assistance beyond retirement. Yet it can be viewed from another prospect which acts as a capital to stimulate economic growth. Economic theory and empirical results suggest that pension funds can affect economy growth indirectly through financial market development and by its economic wide impact through corporate engagement. However, research on the extent to which growth in EPF contributes directly to economic growth is quite scarce. In this paper, Cobb-Douglas production function was modified with EPF asset as a shift factor to investigate the direct link between EPF asset and economic growth. Econometric methods were used to examine Malaysia dataset covering from year 1980 to year 2005. However, empirical results does not successfully support that there is a direct impact on EPF towards economic growth.

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LIST OF SYMBOLS

%	percent
RM	Ringgit Malaysia
-	minus
+	add
/	Divide
=	equal
In	natural logaritma
χ^2	Chi square distribution
Σ	Sum of square
ε	Error term
<	Less than
df	degree of freedom
β	coefficient
n	number of observation
k	number of parameter

CHAPTER 1

INTRODUCTION

Before the advent of pension systems, the lives of older generation were often ones of insecurity and deprivation due to decreasingly able to work but not necessarily having enough savings or support from family members. Therefore, many older people choose to reduce their spending to minimal level, in line with their limited means. In order to eradicate the problem of old age poverty, pension system was introduced and the result was significant in helping the older generation.

Yet in this few decades, demographic trends shift towards population aging, reflecting longer life expectancy and declining fertility has lead many countries to re-think their pension system (David and Hu, 2004). Typically, changes made from unfunded systems to funded systems. Given the funded nature of many new pension schemes, pension assets have increased across countries around the world. Many studies claimed that the creation of fully funded pension systems may have significant positive effect on household savings, capital market development and economic growth (Catalan, *et al.*, 2000, Clark and Hebb, 2003, David and Hu, 2004, Davis, 2005, Hebbel, 1999, Hurlin and Venet, 2003, Impavido, *et al.*, 2003 and Walker and Lefort, 2002).

As many studies claim that pension fund did have positive effect on economic growth, my dissertation is interested to investigate whether this phenomenon happens in Malaysia, by investigating is there a directly link between pension assets and economic growth in Malaysia. In other words, is there a link between Employee Provident Fund (EPF) and Malaysia's Economic growth? Is Employee Provident Fund (EPF) growth positively associated with economic performance? I seek to provide insight into this question with both a theoretical model and related empirical work.

1.1 Employee Provident Fund

Employee Provident Fund (EPF) is one of the oldest provident funds in the world. It was established in 1951 and is a contributory pension plan that is available in Malaysia's employee benefit system. Other employee benefit system includes Social Insurance schemes, Armed Forces Provident Funds, Workmen's Compensation Scheme and Public sector pension scheme. The main purpose is to provide financial security for the older beyond retirement.

Under the Employees Provident Fund (EPF) Act 1951, EPF is a compulsory saving plan for all the employers and employees. It operates both as retirement fund as well as multi-purpose saving funds with withdrawal allowed for housing, education and health. EPF is a government agency under the aegis of the Ministry of Finance and management is by a tripartite governing board consisting of representatives of the employer, the employee and the government (EPF Annual Report, 2005).

The following categories of workers are exempted from the EPF Act:

- Expatriates
- Domestic servants
- Self-employed workers (but can elect to contribute)
- Out-worker (persons who do cleaning, alteration repair works, etc.)
- Person detained in custody (prisoners)
- Pensioners

The employer's contribution is 12% and the employee's contribution is 11% of the employee monthly wages. Each member's contributions are separated into three dedicated accounts with specific withdrawal requirement. 60% of the contribution are deposited into account I and cannot be withdrawn until the contributor reach age 55. At age 55, the contributor can withdraw their fund either in single lump sum, part lump sum with balance paid in periodical payments, periodical withdrawal or withdraw the dividend annually leaving the balance within the account (EPF Annual Report, 2005).

30% of the contribution are deposited into account II and withdrawals are permitted for the purchase or building of a house, or the payment of housing loans. The balance of this account included total contribution and compound interest may be withdrawn at age 50. The final 10% are deposited into account III and may only be withdrawn to meet the costs of critical medical condition defined by medical board (EPF Annual Report, 2005).

Figure 1.1 shows Employees Provident Fund's (EPF) asset according to year. A drastic growth appeared due to large amount foreign direct investment and people involve in labor force with proportional increase. Therefore, contribution toward the Employees Provident Fund (EPF) increases as well (EPF Annual Report, 2005).

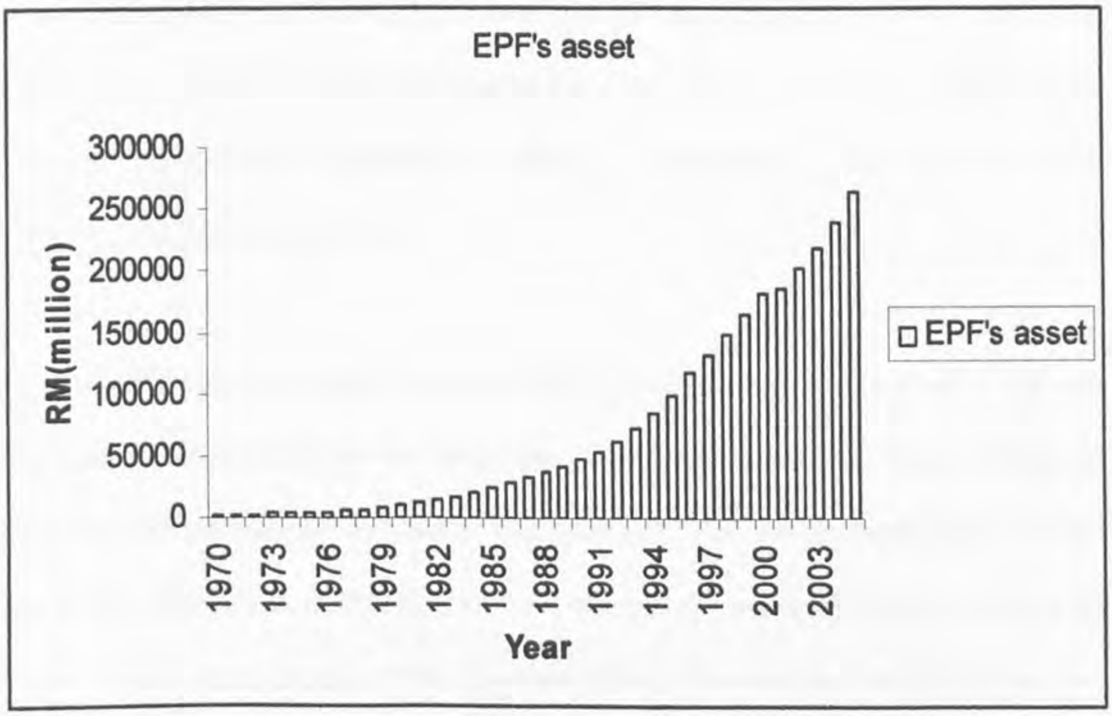

Figure 1.1 EPF's asset according to year

Under the 1991 act, the Employees Provident Fund (EPF) can only utilize approved investments. These include Malaysian Government Securities (MGS), debenture loans, money market instruments, equities and property. Investment strategies are determined by both the investment department and the investment and economic research department employing economists fund managers and investment analysis.

The act also states that the Employees Provident Fund (EPF) is required to invest at least 50% of its annual surplus funds in MGS, provided the total invested in government securities is not less than 70% of the total value of investments. However, due to shortage of MGS, Malaysian government allowed the Employees Provident Fund (EPF) to diversify their investments and at the end of 1998, the share of MGS declined from 86.3% in 1985 to 34.5% in 2000. On the other hand, the share of loans and debentures increased from 7.0% to 20.5% and that in equity increased from 3.3% to 21.2%. Significantly, the share in money market instruments increased from 3.4% to 23.1% (Thillainathan, 2004).

Dividends are calculated on a compound basis and are paid annually. The rate of dividend is determined by the Employees Provident Fund (EPF) board, subject to approval from the minister of finance, under the EPF Act that dividend cannot be less than 2.5%. Statistics show that the dividend rate has exceeded the inflation rate for 43 out of 47 years from 1951 to 1998 (Caraher, 2000). This denotes that the Employees Provident Fund (EPF) has always maintained a high degree of efficiency in the management of funds.

1.2 Malaysia Economic Growth

Malaysia is located in Southeast Asia with a population of about 25 million. In the past 30 years, Malaysia has successfully achieved a rapid economic growth due to the country's political stability. Malaysian economic growth perked at five to seven percent per year from the early 1960s until the late 1990s. During economic recession, Malaysia registers a negative growth rate of 7.4% in 1998. Overall, the economy grew better than expected at an average of 4.7% per annum (Thillainathan, 2004).

Figure 1.2 shows nominal gross domestic product from 1978 to 2005. Gross domestic product (GDP) is a measure of the income and expenditures of an economy. GDP was called the best single measure of the economic well-being of a society (Mankiw, 2004). As we can see from the figure 1.2, under systematic planning by the government, Malaysia economic well being increases drastically (Year Book of Statistic, 2000).

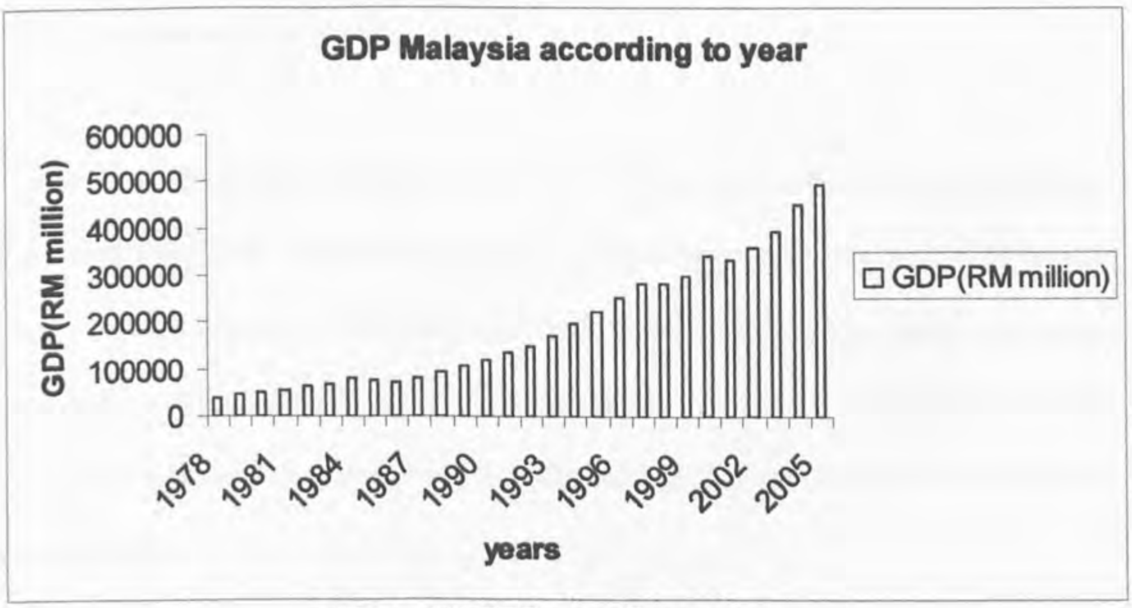

Figure1.2 GDP according to year

1.3 Objective Study

In simple terms, econometrics deals with the application of statistical methods to economy. Econometrics is distinguished by the unification of economy theory, mathematical tools and statistical methodology (Ramanathan, 1998). More broadly, it is concerned with estimating economic relationships, confronting economic theory with facts and testing hypothesis involving economic behavior, and forecasting the behavior of economic variables. Therefore, in my dissertation various econometric methods will be used to investigate the relationship of EPF asset and economic growth.

The objectives of this project are:

1. To identify whether funding leads to an increase in saving which permits higher capital formation.
2. To identify whether there is a direct impact of funding on economic growth.

1.4 Organization of Study

The paper is structured as follows. Chapter one introduce the definition of Employee Provident Fund and Malaysian Economy. Chapter two provides a brief literature review on the issue of whether and how pension fund may affect economic performance. Chapter three deals with methodology by using various econometric methods. Result and discussion will be presented in Chapter four and conclusion in Chapter five.

CHAPTER 2

LITERATURE REVIEW

2.1 The Growth of Public Pension Funds

Pension fund management is an important practice in a great number of countries and has long been recognized as having major economic and social implications. Although the primary function of public pension fund is to provide sufficient, sustainable and affordable benefits for the old generation, recent work suggests that pension fund spillovers on the financial system are significant, influening economic performance and capital accumulation, thus modifying firms' and banks' financing patterns (Clark and Hebb, 2003).

Table 2.1 presents distribution of public pension funds around the world. Carmichael and Palacio (2003) found that at least 65 countries worldwide have significant reserves in their publicly managed pension funds. According to Carmichael and Palacio (2003), these assets represent approximately one quarter of global GDP. They are often the single largest institutional investor in the country. However, it is feasible to achieve a certain funding ratio through the accumulation of reserves in a public pension fund depending on the interlinked matters of governance, investment policy, and accountability.

Table 2.1 Regional distribution of public pension funds

Region	Number of public funds	Average Share of GDP(%)
High income OECD	10	10.8
Latin America and Caribbean	11	8.4
Sub Saharan Africa	22	8.7
East Asia	5	7.0
South Asia	9	16.6
Middle East and North Africa	7	12.3

More specifically, some countries such as Netherlands, United Kingdom, Switzerland and South Africa had contractual saving, for example pension fund assets in excess of 100 percent of GDP in 1996 (Catalan, *et al.,* 2000). Results were shown in table 2.2. From the table, Malaysia has shown a dramatic growth in contractual savings within 16 years. From year 1980 to year 1996, Malaysia pension fund asset has increased 30.94 percent. If this trend continues, it is expected to excess 100 percent of GDP within a few decades. The only country in the sample that experienced a decline in the participation of contractual savings in GDP is Singapore.

Table 2.2 Contractual savings ratio to GDP (percent)

Countries	1980	1985	1990	1996
Netherlands	66.90	93.65	108.11	148.19
United kingdom	38.81	74.77	86.90	141.72
Switzerland	70.00		88.5	131.38
United state	43.01	59.33	69.20	94.80
Canada	30.29	38.08	47.80	64.59
Australia			33.49	57.52
Sweden		23.92	28.63	47.96
Norway			33.49	57.52

Belgium		23.92	28.63	47.96
Korea, Rep.	13.15	17.29	25.80	30.02
Germany		16.42	20.68	23.82
Austria			13.28	21.35
Spain		3.21	9.87	18.78
South Africa	39.27	55.93	78.13	126.01
Singapore		153.36	115.13	93.50
Chile	1.00		29.28	50.61
Malaysia	20.08	35.65	47.18	51.02
Thailand			2.10	4.80

Table 2.2 Contractual savings ratio to GDP (percent) (Continued)

Focus on emerging market economies countries (EME), Davis (2005) provides statistic result on all the EME countries. EME countries are the countries that starting to participate globally by implementing reform program and undergoing economic development. EME countries including Argentina, Bolivia, Brazil, Bulgaria, Chile, Colombia, Costa Rica, Czech Republic and so on. Ten highest pension fund asset in GDP's countries were selected to be presented in the table below. From the result, Chile, Fiji, Malaysia and Singapore are countries that with pension fund assets exceeding 50 % of the GDP.

Table 2.3 Total assets of pension funds within EMEs countries

Countries	Total asset(US million)	As % in GDP	Year of observation
Fiji	1561	69.3	2003
Singapore	60877	66.6	2003
Malaysia	58476	56.7	2003
Chile	39672	54.8	2003
Hong Kong	27682	17.1	2002
Bolivia	1258	15.7	2003

Estonia	1012	14.7	2002
Sri Lanka	2698	14.6	2000
Brazil	64444	13.1	2003
Argentina	15328	11.8	2003
Total asset with EMEs	390358	12.0	
East Asian EMEs	115381	16.4	

Table 2.3 Total assets of pension funds within EMEs countries (Continued)

2.2 The Relationship between Pension Fund and Economic Growth

As we can see from above, most countries including Malaysia has a huge amount of pension fund assets. Thus it has become a very useful resource to society. Many scholars intent to find how these huge amounts of money were used to maximize society well-being.

In this section, I intend to clarify the rationale behind the link from pension funds to capital market development, and from that to economic growth and development by listing out fewer scholar studies. The underlying philosophy is that pension funds asset can affect economic growth indirectly in two ways, through financial market development (Davis, 2005) (Walker and Lefort, 2002) and by its economy wide impact through corporate engagement (Clark and Hebb, 2003).

According to Clark and Hebb (2003), pension fund not only act as a social tools to help the old generation yet rather reconfigured capitalism. In Clark and Hebb (2003) paper "Understanding pension fund corporate engagement in a global arena" state out the revolution of capitalism. In the first stage, the owner controlled the business. In the second stage, the management controlled the business. The third stage of capitalism where asset portfolio managers controlled the business. The fourth stage of capitalism where pension funds investor controlled the business. The new revolution shows that pension fund investors play the key role as they not only as aggregate shareholders but are also beginning to use their position to control over the corporations they hold in their portfolios.

Pension fund managers are not expected to control companies but they may become important minority shareholders. If fund managers act in the interest of future pensioners, they potentially become important representatives of minority shareholders interest (Walker and Lefort, 2002) and in the name of long term share value, pension funds managers are seeking increased control over firm level decision making to promote the interests of minority shareholders of the firm in which they invest (Impavido, *et al.*, 2003), (Clark and Hebb, 2003). Their acts are likely to enhance financial and trading systems by enforcing better regulation regarding disclosure; accounting and auditing standard. This would lead to greater capital market transparency. Pension funds are thus a public good that can contribute in the process of modernizing capital market.

According to Walker and Lefort (2002), as pension fund asset increasing dramatically, typically managing increasing volumes of funds justifies increasing level of specialization and requires professional management. This process of specialization of pension fund management also affects other related agents, such as investment bankers, firm managers and authorities. It implies the use of more recent knowledge,

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