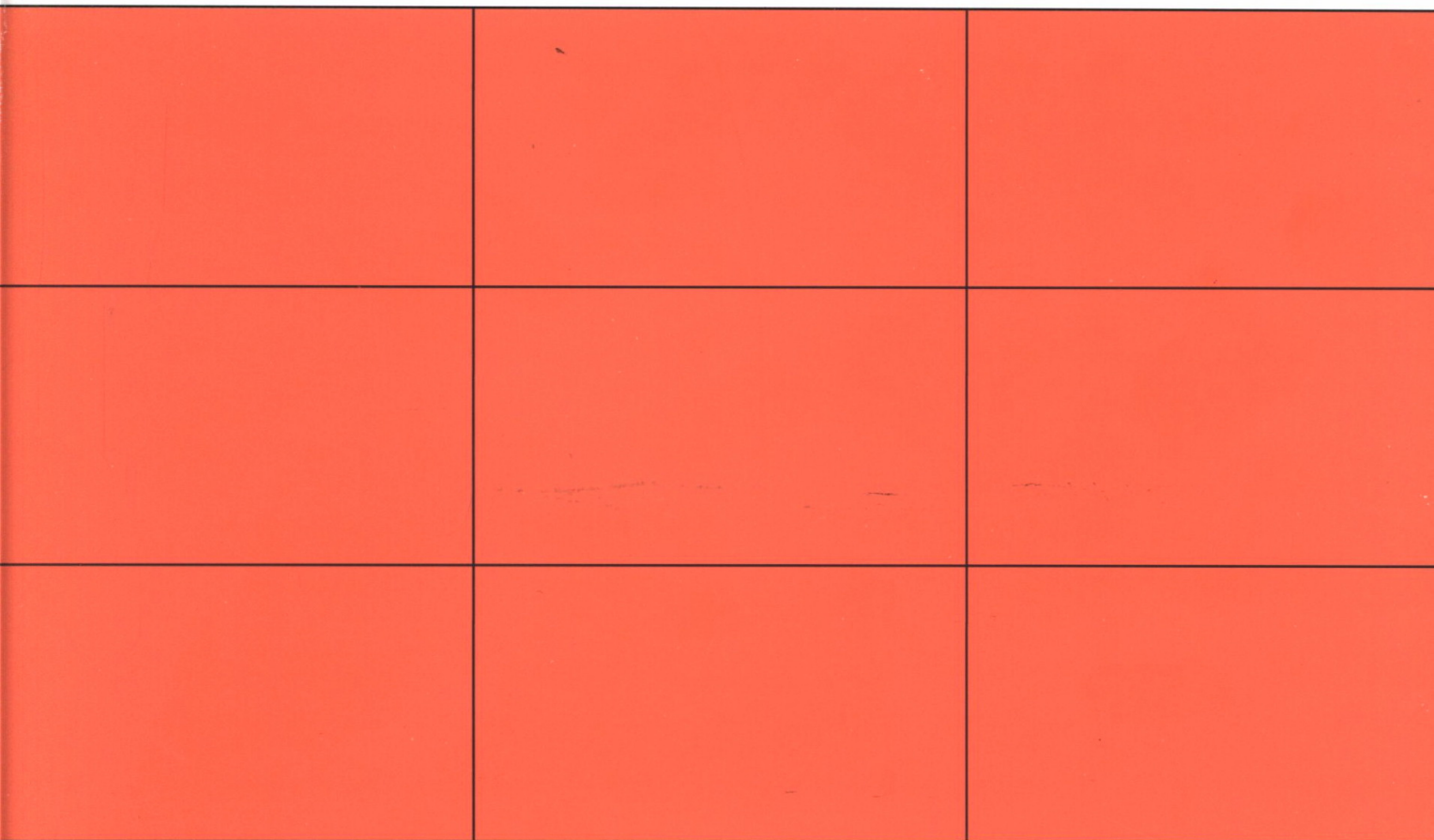


Mobilization of Domestic Savings

By

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การระดมเงินออมภายในประเทศ

หากเปรียบเทียบอัตราการออมของประเทศแถบเอเชียในช่วงสามทศวรรษที่ผ่านมา จะเห็นได้ว่า อัตราการออมของไทย (26% ของผลผลิตประชาชาติในปี 2533) ต่ำกว่าของประเทศอุตสาหกรรมใหม่ เช่น สิงคโปร์ (43%) เกาหลีใต้ (36%) และอินโดนีเซีย (33%) และถึงแม้อัตราของไทยจะเพิ่มขึ้นบ้างในระยะหลัง แต่ก็ยังไม่ทำให้ระดับการออมเพียงพอแก่การลงทุนดังที่ประเทศอุตสาหกรรมใหม่ได้ประสบความสำเร็จมาแล้ว บทเรียนที่น่าสนใจประการหนึ่งจากประสบการณ์ของต่างประเทศคือ ส่วนขาดดุลเงินออมเมื่อเทียบกับเงินลงทุนอยู่ในระดับที่สูงที่สุดคือ 8-13% ของผลผลิตประชาชาติ และระดับสูงสุดเช่นนั้นไม่คงอยู่นานเกิน 2-3 ปี อัตราการออมที่แตกต่างกันระหว่างประเทศนี้สืบเนื่องมาจากปัจจัยหลายประการนอกเหนือจากระดับรายได้ ตัวอย่างของปัจจัยเหล่านั้น ได้แก่ กฎเกณฑ์ข้อบังคับ การศึกษา สถาบันอัตราเพิ่มของ ประชากร ระบบการเมือง และวัฒนธรรม

หากพิจารณาโอกาสที่ไทยจะเพิ่มอัตราการออมให้สูงขึ้นโดยศึกษาถึงรายละเอียดของการใช้จ่าย จะเห็นได้ว่ารัฐสามารถเข้ามาช่วยกระตุ้นการออมได้อย่างแน่นอน เพราะมีรายจ่ายหลายประเภทที่ยังขาดประสิทธิภาพ ตัวอย่างของรายจ่ายเหล่านั้นที่เห็นได้ชัดในภาคครัวเรือนคือ ค่าเสื้อผ้าและรองเท้า ค่าเดินทาง และติดต่อสื่อสาร ส่วนรายจ่ายของภาครัฐที่สิ้นเปลืองนั้นมีหลายประการเช่น รายจ่ายที่เกี่ยวข้องกับบุคลากร การจัดองค์งาน งานก่อสร้าง สาธารณูปโภค การใช้น้ำมันเชื้อเพลิง บำเหน็จบำนาญ ค่ารักษาพยาบาล และเงินอุดหนุน

เนื่องจากส่วนขาดดุลเงินออมตั้งแต่ปี 2531 เป็นต้นมาเกิดขึ้นเพราะภาคเอกชน แต่เพียงฝ่ายเดียว จึงควรศึกษารายละเอียดของพฤติกรรมและรูปแบบการออมของเอกชน จากการศึกษาปัจจัยการออมของครัวเรือนในประเทศไทยโดยใช้ข้อมูลจากการสำรวจภาวะเศรษฐกิจและสังคมของครัวเรือนโดยสำนักงานสถิติแห่งชาติในปี 2518/19, 2523/24, 2528/29, 2530/31 พบว่าอัตราการออมของครัวเรือนขึ้นอยู่กับปัจจัยทางเศรษฐกิจ โครงสร้างของครัวเรือน อาชีพ และแหล่งที่อยู่อาศัย ครอบครัวที่รวยมักจะมีอัตราการออมที่สูงกว่าครอบครัวที่จน อัตราดอกเบี้ยที่แท้จริง (อัตราดอกเบี้ยลบด้วยอัตราเงินเฟ้อ) ช่วยกระตุ้นการออมแต่มีผลค่อนข้างน้อย ส่วนการเข้าถึงสถาบันการเงินก็ช่วยกระตุ้นการออมเช่นกัน สำหรับโครงสร้างของครอบครัวนั้นพบว่าเนื่องจากเด็กที่มีอายุน้อยบริโภคน้อยกว่าผู้ใหญ่ โครงสร้างทางอายุของสมาชิกในครัวเรือนมีผลต่ออัตราการออม อายุของหัวหน้าครัวเรือนก็มีผลเช่นกัน โดยทั่วไปครัวเรือนที่หัวหน้าครัวเรือนมีอายุน้อย (หรืออยู่ในช่วงต้นๆ ของการสร้างครอบครัว) มีแนวโน้มว่าจะบริโภคมากกว่า

ครัวเรือนที่หัวหน้าครัวเรือนมีอายุสูง ส่วนระดับการศึกษาของหัวหน้าครัวเรือนไม่มีผลต่ออัตราการออม เป็นนัยสำคัญ

ความแตกต่างทางด้านอาชีพนั้นมีความสำคัญต่อการออม ครัวเรือนที่ประกอบอาชีพส่วนตัวจะ ออมมากกว่าครัวเรือนที่เป็นลูกจ้าง เนื่องจากผู้ประกอบอาชีพส่วนตัวรายย่อยไม่สามารถเข้าถึงสินเชื่อจาก สถาบันการเงินในระบบได้อย่างเต็มที่ จึงมีแรงจูงใจให้ออมมากขึ้นเพื่อไปใช้เป็นเงินทุนสำหรับธุรกิจ แทนที่จะต้องกู้ทั้งหมดจากตลาดเงินนอกระบบซึ่งมีอัตราดอกเบี้ยที่สูงมาก นอกจากนี้ความผกผันหรือ ความไม่แน่นอนของรายได้ของครัวเรือนที่มีอาชีพส่วนตัวที่มักจะสูงกว่าครัวเรือนที่เป็นลูกจ้างก็เป็นสิ่ง กระตุ้นการออมของกลุ่มที่มีอาชีพส่วนตัวด้วย ส่วนครัวเรือนที่หัวหน้าครัวเรือนเป็นลูกจ้างภาครัฐนั้น พบว่าจะมีอัตราการออมที่สูงกว่าลูกจ้างเอกชน ผลที่ได้นี้แตกต่างกับการศึกษาบางชิ้นในอดีต แต่อาจจะ อธิบายได้เมื่อคำนึงว่าครัวเรือนที่หัวหน้าครัวเรือนเป็นลูกจ้างภาครัฐได้รับการอุดหนุนจากภาครัฐทางด้าน การรักษาพยาบาลเกือบทั้งสิ้น ส่วนครัวเรือนภาคเอกชนอาจจะประสบภาวะเจ็บป่วยในครอบครัวซึ่งจำเป็นต้อง ใช้จ่ายในการรักษาพยาบาลเป็นอย่างมากซึ่งก็จะทำให้ออมน้อยลง

สำหรับแหล่งที่อยู่อาศัยนั้น พบว่าครัวเรือนที่อยู่ในกรุงเทพฯ จะอมน้อยกว่าครัวเรือนในแหล่งอื่น เกือบทั้งสิ้น เหตุผลคงเป็นเพราะแรงจูงใจที่กระตือรือร้นในการใช้จ่ายอย่างฟุ่มเฟือยซึ่งมีอยู่มากเป็นพิเศษ ในกรุงเทพฯ

ผู้ออมส่วนใหญ่ของไทย (โดยเฉพาะที่เป็นรายย่อย) มักชอบออมในรูปแบบที่คล่องตัวคือในรูปแบบที่สามารถถอนหรือกู้ได้ง่าย และผู้ออมเหล่านั้นไม่ค่อยมองการณ์ไกล ดังนั้นเงินออมในรูปแบบประกันชีวิต และกับบริษัทเครดิตฟองซิเอร์จึงมีน้อย (น้อยกว่า 3% ของเงินออมภาคครัวเรือน) ในขณะที่การเล่นแชร์ และเก็งกำไรระยะสั้นในตลาดหลักทรัพย์เป็นที่แพร่หลาย

หลังจากที่รัฐได้ดำเนินมาตรการเปิดเสรีทางการเงินมาหลายมาตรการในช่วง 4 ปีที่ผ่านมา สถาบันการเงินมีช่องทางเพิ่มขึ้นหลายช่องทางที่จะหารายได้ คือไม่จำเป็นต้องพึ่งการระดมเงินฝาก และปล่อย สินเชื่อเป็นอันมากดังเช่นในอดีต นอกจากนั้น สภาพคล่องทางการเงินที่สูงมากในตลาดโลก ขณะนี้ พร้อมทั้งการผ่อนคลายปฏิรูปการเงินตราของประเทศไทยถึง 3 รอบก็ทำให้สถาบันการเงินสามารถเข้าถึงสินเชื่อ ราคากู้จากต่างประเทศได้ทุกขณะเมื่อมีความต้องการปล่อยสินเชื่อภายในประเทศ ดังนั้นท่ามกลาง บรรยากาศของตลาดเงินเช่นนี้สถาบันการเงินจึงมีความสนใจน้อยลงที่จะระดมเงินฝาก อัตราดอกเบี้ยหรือ ปัจจัยอื่นๆ ที่เกี่ยวข้องกับผลตอบแทนจากเงินฝากเช่นภาษีดอกเบี้ย ก็จะมิใช่ปัจจัยที่สำคัญในการระดม

เงินออมอีกต่อไป และผลการวิเคราะห์ทางเศรษฐมิติก็ชี้ชัดว่าอัตราดอกเบี้ยที่แท้จริงมีผลน้อยต่ออัตราการออม อีกนัยหนึ่งคือ ความมองการออมในแง่มุมมองอื่นนอกจากเงินฝาก และคำนึงถึงพฤติกรรมการออมหรือความชอบของผู้ออมส่วนใหญ่

ผลการศึกษาชี้แนะว่ามาตรการที่จะช่วยกระตุ้นหรือระดมการออมอย่างได้ผลแบ่งออกได้เป็น 3 ประเภทต่อไปนี้

- (1) ปรับปรุงประสิทธิภาพของการใช้จ่าย
- (2) ใช้สินเชื่อเป็นเครื่องดึงดูดใจผู้ออม
- (3) ส่งเสริมการออมผ่านกองทุนต่างๆ

เพื่อปรับปรุงประสิทธิภาพการใช้จ่ายของภาคครัวเรือน รัฐควรออกมาตรการสนับสนุนการซื้อสินค้าซ่อมแซมตกแต่ง และขายต่อเสื้อผ้าและรองเท้าโดยเฉพาะให้แก่ผู้มีรายได้น้อยในชนบท ในขณะที่เดียวกันรัฐก็ควรจูงใจให้มีการเดินทางร่วมกันหรือผ่านขนส่งมวลชน เพื่อลดค่าใช้จ่ายประเภทเดินทางติดต่อสื่อสารสำหรับรายจ่ายของภาครัฐเองนั้น สามารถเพิ่มประสิทธิภาพได้โดยการปรับปรุงกฎเกณฑ์เกี่ยวกับการจ้างงาน การจัดองค์กร การใช้ทรัพยากรร่วมกัน การเพิ่มบทบาทของเอกชน การเชื่อมโยงข้อมูลและข่าวสารทางอิเล็กทรอนิกส์ และการประเมินต้นทุนโครงการอย่างละเอียดก่อนดำเนินงาน ส่วนธุรกิจเอกชนก็มีช่องทางที่จะเพิ่มประสิทธิภาพของรายจ่ายได้หลายช่องทางเช่น ประหยัดโดยใช้ขนาดที่ใหญ่ขึ้นหรือทรัพยากรร่วมกัน ส่งเสริมให้หน่วยงานเชี่ยวชาญในสาขาย่อย ใช้ของเหลือให้เป็นประโยชน์ วางแผนล่วงหน้าและจัดตารางเวลาให้เหมาะสม ช่องทางเหล่านี้รัฐควรสนับสนุนหรือให้สิทธิพิเศษบางประการ

เนื่องจากในปัจจุบันรัฐไม่จำเป็นต้องกู้เงินจากธนาคารออมสินมาชดเชยส่วนขาดดุลงบประมาณดังเช่นในอดีต ธนาคารออมสินจึงสามารถใช้สภาพคล่องส่วนเกินให้เป็นประโยชน์ได้โดยเปิดโครงการระดมเงินออมผ่านคูปองสินเชื่อ ในโครงการคูปองสินเชื่อนี้เมื่อกลุ่มบุคคลใดฝากเงินกับเครือข่ายของธนาคารออมสิน (ซึ่งประกอบด้วยสาขาธนาคารออมสิน สาขาธนาคารเพื่อการเกษตรและสหกรณ์การเกษตร และที่ทำกำไรไปรษณีย์) อย่างสม่ำเสมอเป็นงวดๆ จนครบช่วงเวลาหนึ่งแล้ว ธนาคารออมสินก็จะออกคูปองให้เป็นสิทธิ์ในการกู้เงิน คูปองนี้จะระบุทั้งวงเงินและวันหมดอายุซึ่งขึ้นอยู่กับสถิติของงวดและจำนวนเงินฝาก โครงการคูปองสินเชื่อที่เสนอนี้มีเป้าหมายที่จะระดมเงินออมจากตลาดนอกระบบเช่น วงแชร์ ซึ่งมักประกอบด้วยผู้ที่มีแนวโน้มการออมที่สูงแต่ไม่สามารถเข้าถึงสินเชื่อจากสถาบันการเงินอันได้แก่ ผู้ประกอบอาชีพส่วนตัวหรืออิสระ หรือครัวเรือนที่อยู่ในภูมิภาค เป็นต้น

โครงการคูปองสินเชื่อนี้จะไม่ก่อความเสี่ยงทางด้านหนี้สูญเกินเหตุ เพราะคูปองสินเชื่อนั้นออกให้แก่กลุ่มผู้ฝาก ดังนั้นสมาชิกของกลุ่มก็จะช่วยดูแลติดตามหนี้ให้อยู่แล้วเพื่อรักษาประโยชน์ของคนในขณะเดียวกัน โครงการก็จะไม่ก่อความเสี่ยงทางด้านสภาพคล่องเกินเหตุเช่นกัน เพราะเครือข่ายสาขาของกระแสดเงินฝากนั้นกว้างขวางมากและกระจายทั่วประเทศตามสาขาของธนาคารออมสิน ธนาคารเพื่อการเกษตรและสหกรณ์การเกษตร และที่ทำการไปรษณีย์ หากอัตราผลตอบแทนที่เสนอแก่กลุ่มผู้ฝากสูงเพียงพอ และการใช้สิทธิ์ที่จะกู้เงินตามคูปองสินเชื่อนั้นไม่ต้องผ่านขั้นตอนที่ยุงยากดังเช่นธนาคารพาณิชย์ โครงการนี้มีโอกาสประสบความสำเร็จมากที่จะดึงเงินออมนอกระบบเข้าสู่ในระบบการเงินและช่วยลดส่วนขาดดุลเงินออมของประเทศ

สำหรับการออมของลูกจ้างของทั้งภาครัฐและเอกชนนั้นก็สามารถกระตุ้นได้โดยมีมาตรการสนับสนุนการออมผ่านกองทุนต่างๆ ระบบบำเหน็จบำนาญของภาครัฐเองกำลังอยู่ในขั้นตอนของการเปลี่ยนแปลงมาเป็นระบบกองทุนบำเหน็จกลาง ซึ่งจะเป็นการสร้างระบบการออมของภาครัฐให้เป็นรูปธรรมมากขึ้นและลดภาระในอนาคตของรัฐด้วย การประกันสังคมก็จะขยายสิทธิประโยชน์ออกไปครอบคลุมการเกษียณอายุในอีกไม่กี่ปีข้างหน้า ซึ่งจะเป็นเครื่องมือในการระดมเงินออมได้อย่างดีถ้ามีการวางรูปแบบในการปฏิบัติอย่างรอบคอบ และสุดท้ายการให้สิทธิประโยชน์เพิ่มเติมแก่กองทุนสำรองเลี้ยงชีพ เช่น สิทธิทางด้านภาษีอากร เพื่อสนับสนุนให้บริษัทและลูกจ้างเอกชนเข้าร่วมในกองทุนสำรองเลี้ยงชีพมากขึ้นก็จะช่วยส่งเสริมการระดมเงินออมจากลูกจ้างภาคเอกชนมากขึ้น

โดยสรุป แนวทางกระตุ้นการออมภายในประเทศทั้งสามแนวทางที่เสนอข้างต้นคงจะสามารถช่วยเพิ่มการออมหรือลดส่วนขาดดุลเงินออมของประเทศลงได้ในระดับหนึ่ง

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Mobilization of Domestic Savings

Ever since 1990 the problem of inadequate savings relative to domestic investment has captured strong interest from most parties who are concerned with Thailand's macroeconomic status. That is unsurprising because the savings gap grew to a record high level or about 8-9% of GDP in 1990-91. And even though the economy slackened somewhat together with the extent of savings deficit in 1992, the trend of savings gap is still threatening throughout the Seventh Economic and Social Development Plan. Under such circumstance, the government has to exert its best effort to tap funds abroad in order to finance the gap, instead of primarily resorting to country's precious foreign exchange reserves since utilizing those reserves to a large extent will certainly lower the country's credit worthiness. However, considerable and continual foreign borrowing could easily lead to external debt problems as widely experienced by various Latin American nations in the eighties. In the past Thailand also encountered distressing economic difficulties due to foreign debt, for example, in 1985 when her debt outstanding to GDP ratio reached 40%. In this respect, the events after 1989 gave rise to tension again as the external debt outstanding/GDP ratio resurged to 37% in 1992. Such strain was largely attributed to liberalization of exchange controls and the jump in current account deficits with foreign trade partners.

Therefore, it is comprehensible that at present almost all parties focus their attention on how to effectively stimulate domestic savings by any means. In this study, before proposing or analyzing any measure in detail, the report will compare savings accounts across countries in East Asia and investigate the possibility as well as capacity of Thailand to enlarge her own savings. Such examination should yield both correct understanding of the prevailing status and some useful insights.

1. Savings in Asian Countries

Figures 1-6 and Tables 1.1 - 1.7 display the evolution of savings and investment relative to GDP in some Asian countries including Thailand, Indonesia, Malaysia, the

Philippines, Singapore, and South Korea. Presented are the data reported in the IMF's International Financial Statistics. Each graph depicts variations in savings-investment balance of each country in the past three decades (1960-90). Once those graphs are thoroughly examined, the following characteristics are evident.

1.1 In newly industrialized countries (NICs) such as Singapore and South Korea, investment/GDP ratios grew continually during 1964-81. In the meantime, their savings/GDP rose as well and even quicker so that the gaps steadily narrowed down. By 1985 these NICs reached the state whereby their national income was sufficiently high to generate domestic savings which not only bulked large but also exceeded investment, i.e. 35% of GDP in the case of South Korea and 43% in the case of Singapore in 1990.

1.2 In ASEAN, Malaysia is very similar to NICs in that investment accelerated during 1969-80 while savings gradually rose and caught up in 1986. Her savings averaged out around 30% of GDP. Indonesia differed from other ASEAN countries in that her investment and savings relative to GDP rose in tandem throughout 24 years (1967-90) until the level of 34-36% was reached in 1990. And Indonesia's savings gap never exceeded 7% of GDP. In this connection, being one of the oil-exporting must have been a crucial factor which helped Indonesia avoid problems during oil price crises and control the extent of her savings inadequacy.

1.3 Thailand's experience was similar to the Philippines' in that their savings/GDP stayed steady all along, unlike the rising trends in Malaysia and Indonesia. In the Philippines, this ratio swung around 15-20% of GDP until 1990. The same is applicable to the case of Thailand but the swinging momentum was not equally strong and the ratio remained mostly at 20% until 1985. From 1986 on, Thailand differed from the Philippines in that Thai savings rose notably to the level of 27% in 1989. That was largely due to substantial increases in tax revenue during the rapid-growth period of 1987-90. In the meantime, Thai investment grew at a quick pace as well.

1.4 If special attention is directed to savings gap, experiences of different countries demonstrate two important features. First, in most cases the savings gap reached the peak of 8-13% of GDP during the period of investment acceleration. Second, that high a gap never persisted beyond 2-3 years because the urgency and the extent of investment needs dwindled while local savings relative to GDP caught up. These two common

experiences across different countries should serve as a useful guidance to Thailand's economic development planning.

Thailand's experience in the past two decades indicates that the private sector has lately become more aggressive in spending. That is evident from the data in Table 1.7 (continued). Throughout the seventies and most of the eighties (1980-87), all the savings-investment gap was attributed to the public sector. In fact, the savings surplus of private entities helped partly finance the deficit engendered by the government. It was only since 1988 that the public and private sectors interchanged their roles. That is, private enterprises began to invest by more than what they saved. Fortunately, the government's conservative fiscal policy, together with booming tax revenue which resulted from very healthy economic expansion, helped finance a part of savings gap generated by private undertakings.

1.5 Before concluding about strong or weak points of any country from the above-mentioned international comparison, one ought to be aware of institutional and regulatory differences across countries because those differences have notable impact upon savings. For instance, Singapore's Central Provident Fund requires that employees save 25% of their income and another 25% be contributed by employers. This Fund is applicable to more than 80% of all employees in the country. The Employees Provident Fund in Malaysia works in a similar fashion. Indonesia and the Philippines have compulsory social security systems which help not only raise national savings but also avoid liquidity problems in funding investment by those savings. That is so because those compulsory savings can be withdrawn only after retirement or quitting. Thus, those programs result in long-term savings which are suitable for investment in fundamental economic development projects.

1.6 In addition to institutional factors, there are several other variables which play important roles in determination of savings. Examples of those variables are population growth, per capita income, and education. One perplexing thing about those determinants is that in different countries they may affect savings in a different fashion depending upon the prevailing status. Or definite conclusion can hardly be drawn about the relationship between those variables and savings in a cross-country comparison.

In summary, countries in East Asia have largely different savings rates and sizes of savings-investment gap. Those differences are attributed not only to different levels of income or economic development but also to various pertinent factors such as the following: regulations, institutions, education, population growth, political regime, culture, and the role of market mechanism. These influential factors make it difficult to conclude on what are primary shortcomings in Thailand, leading to the persistence of savings inadequacy. It is therefore worth investigating the efficiency in spending. Sound understanding of such efficiency will help design appropriate measures to stimulate savings.

2. Expenditure Efficiency as a Means to Raising Savings¹

Should the problem of savings gap be thoroughly considered, one can see the following four channels to raise domestic savings and/or ameliorate the tension from savings gap.

1. Cutting down investment projects.
2. Economizing on consumption expenditures.
3. Improving efficiency of domestic money and capital markets.
4. Raising efficiency of national spending.

Channel 1 will generate both pluses and minuses because postponing or scaling down some investment projects may relieve pressure from savings gap somewhat. But such move may reduce net returns from investment projects to below the break-even point. Or those smaller investment projects may not help delete the fundamental drawbacks of economic infrastructure as much or as fast as desired. As for Channel 2, many studies in the past demonstrate that consumption behavior in Thailand is largely conventional, depending upon only a few principal determinants such as income. And those behavior is rather unresponsive to policy variables (e.g. interest rate, interest income tax). Therefore, chances are slim that Channel 2 can successfully resolve the problem of savings shortfall.

1. Most of this section is drawn from the TDRI study on "Improvement of Efficiency in Production and National Spending," conducted by Nopporn Ruangskul, Duangmanee Vongpradhip, and Pakorn Vichyanond in September 1990.

Channel 3 can work in two ways. First, introducing new financial instruments or amending rules and mechanisms of existing financial instruments may help attract more savers. For instance, those who save more or steadily could be given higher net returns or some special privileges. Second, some existing savings in the country may be converted into the formats that investors can directly utilize in their investment projects. The savings that may be converted as such are the ones in unregulated markets, valuables, and immovable properties (e.g. real estate).

Channel 4 will have immediate and direct impact upon domestic savings. Raising efficiency of spending in production, investment, and consumption will expand the savings capacity of spenders or saving-owners at all levels, including households, private businesses, and state agencies. From another perspective, along the process of production, investment, or consumption, if we can economize utilization of resources (including raw materials, machinery, energy, and time) without affecting outcomes of production, investment, or consumption, we will definitely be able to make use of the resource residuals. Or we can narrow the extent of savings-investment gap without slackening the pace of economic growth as by Channel 1. And the state of well-being or mentality of residents is not disturbed as by Channel 2. In other words, Channel 4 does not generate adverse effects along with favorable ones.

Thus, the following will identify the points or stages of consumption, investment, and production whereby resources are wastefully utilized but yet rectifiable. The three groups of savers (households, state agencies, and private businesses) will be treated separately.

2.1 Households

In the past decade, some household expenditures rose relative to national income while others fell (see Table 2.1). The item which fell considerably is food, from 23% in 1980 to 18% in 1985, and 16% in 1990. This reduction is consistent with Engel's law. Four other items moved in the opposite direction: entertainment, clothes and personal belongings, transport and communications, and health care.

Expenditures on entertainment relative to GDP stayed put at 7.1% in 1980-85 but rose evidently when the economy flourished, i.e. from 7.6% in 1986 to 9.7% in 1990. Healthcare expenses moved in a similar manner, from 4% in 1980-85 to 5% in 1986 and

5.7% in 1990. But the expenditures on two other categories grew steadily throughout the past decade: clothes and personal belongings from 7.2% in 1980 to 7.8% in 1985 and 9.4% in 1990 whereas transport and communications from 5.7% to 6% and 7.7% in the same respective periods.

International comparison of household consumption will help pinpoint which particular items of Thai household expenditures are rather high and the government ought to execute some measures to compel or motivate spenders on those items to economize or raise efficiency of household consumption. Table 2.2 compares household consumption relative to GDP in some industrial countries (U.S.A., Japan, West Germany), NICs (Hong Kong, South Korea, Singapore), and some ASEAN members (the Philippines, Thailand) in 1986. Noteworthy from this international comparison are expenses on clothes and shoes as well as those on transport and communications. The Thai ratios on these two categories are higher than those of both major industrial countries and NICs. And these two types of expenditures correspond to the ones which rose in the past decade as mentioned earlier. Therefore, what follows will analyze these two expenditures in detail regarding their relationship with regional characteristics, income level, occupation, economic and social development of the community. In such analysis, data from the socioeconomic survey (SES) of the National Statistical Office will serve as a main reference.

Income level is typically the most important determinant of spending. Table 2.3 shows the ranking of different regions according to their residents' average earnings per annum from high to low, as follows: Bangkok metropolis, Central, Southern, Northern, and Northeastern regions. In each region residents in municipal areas have higher income than those in sanitariums and remote villages. Table 2.4 distributes expenditures on clothes and shoes as well as those on transport and communications into different regions, whereas those expenses are shown in absolute and relative scales. Such statistics help suggest the following important characteristics.

A. Clothes and shoes Since this constitutes one essential element of living, it is not surprising to find that the proportion of this item in all expenditures is high for low-income families but low for those of higher income (see Table 2.4). In this context, it should be noted that low-income families still predominated others because of a large number of these families in the North and Northeast.

Besides income level, three other factors elevate clothes and shoes expenses of families in remote areas beyond those in municipalities and sanitariums. First, the geography and weather, together with the absence of appropriate upkeeping accessories, shortens the workable period of clothes and shoes in rural as opposed to urban areas. Second, peasants ordinarily have to travel outdoor to a larger extent than urban residents. Third, agriculture, which represents the main occupation of rural residents, worsens the condition of farmers' clothes and shoes at a faster pace than those of city dwellers, thus necessitating more frequent turnovers. That relationship is substantiated by the data in Table 2.5. Furthermore, one can also see the significant role of farmers' expenditures on clothes and shoes, as the number of families having agriculturally-related occupations reached 40% of all families in the country in 1988.

B. Transport and communications This type of expense is related to income and community of residence in a converse fashion to that of clothes and shoes. That is, in a higher income community such as municipal districts, spending on transport and communications is more. This correlation must be due to several causes. For example, in a higher income area, better technology or telecommunication networks are available. Prosperity in developed regions induces households to travel and communicate more than those in the less developed. And traffic congestion in advanced regions is another factor which pushes the transport expense beyond the optimal level. Besides, in metropolitan areas or the ones which accommodate massive employment of labor from everywhere, extensive and lengthy travelling increases the community's expenditures on transport.

2.2 State Agencies

In the past two decades, a comparison between private and public spending on both consumption and investment (see Tables 2.6 and 2.7) reveals that the government used a rising portion of resources in the first 15 years (1970-85), from 18% of GDP to 22%. And its share subsided to 16% in 1987-90. The private sector's role moved conversely.

If actual appropriations of the government in the past 9 fiscal years (FY 1984-92) are analyzed according to principal categories (see Table 2.8), one can see the following important items: salary and regular compensation (45% of total), durables & buildings & grounds (12%), and subsidies (6%). These statistics hint upon some problems in public utilization of resources. Those problems and their causes are presented below.

A. Too much personnel because

- Some units were set up temporarily but did not employ temporary staff. Once functions of those units came to an end, the following difficulties emerged: (a) cannot abolish those units (b) cannot terminate hiring contracts with employees (c) can hardly transfer staff across different public offices. These difficulties gave rise to the problems of excessive staff and same jobs done by different offices.

- Some units desired more manpower just for the sake of more positions or "rank and file" or salary increases. Those units thus asked for more but unnecessary positions and staff.

- Some units obtained unqualified personnel. Instead of switching with other units', they requested for more staff.

Because of various causes as exemplified above, expenses on salary and regular compensation grew incessantly and far exceeded all other budgetary spendings. At times the problem of excessive staff arose from poor planning or organizational structuring. For instance, different units did similar or same supplementary duties even though their primary tasks differed from one another. Examples of such similar/same jobs are as follows.

- Road construction done by Department of Highways, Royal Irrigation Department, Department of Public Works, Local Administration Department, Community Development Department, and Office of Accelerated Rural Development.

- Well digging done by Department of Public Works, Department of Mineral Resources, Department of Health, and Office of Accelerated Rural Development.

- Small-scale water supply development done by Royal Irrigation Department, Department of Fisheries, Land Development Department, Community Development Department, Department of Public Works, Department of Health, Local Administration Department, Department of Mineral Resources, Provincial Water Works Authority, National Energy Office, and Office of Accelerated Rural Development.

Having numerous units doing similar or same jobs, despite those jobs being supplementary, adversely affects resource utilization in several respects. Most evident is

the excessive burden on compensation. Furthermore, assigning many units to do the same thing will not only prevent them from developing special skills but may also retard the speed of economic development² because of a lack of coordination.

B. Too many organizations This problem is attributed to many causes. For example, more offices were proposed just for the sake of more positions. And having more subordinates typically led to higher ranks or promotion or rewards. At times new offices were established so as to gain independence or maneuverability. Training centers in different ministries and state enterprises are good examples of organizations hereby deemed too many. These superfluous organizations not only create excessive need for personnel but incur waste on usage of buildings & grounds & equipment.

Similar to the problem of too many organizations is the problem of setting up overabundant committees or subcommittees. These committees were often formulated for specific issues within or across ministries. For instance, there were more than 20 committees established for resolving the problem of traffic congestion in Bangkok metropolis. Although having many committees may help tap new ideas, but too many committees also create negative side effects such as time lag in decision making, conflict of ideas, and extraneous procedural matters.

C. Construction works Some public offices undertake construction works by themselves, quoting the reason that some investment was already pursued regarding both machinery and personnel. Should they abstain from doing the job themselves, initial investment will be worthless. However, what remain uncertain include the speed, quality, and prices relative to the option of hiring private parties. Private enterprises are likely to be superior to public offices in resource utilization, since their net profits heavily depend upon resource use. In the meantime, they will not economize too much, resulting in low-quality job performance, because doing so will dampen their future prospects. On the part of civil servants, the lack of incentive system makes it difficult to induce them to utilize resources efficiently, given that "responsible" officials have no direct bearing upon the government's overall cost or job efficiency.

D. Public utilities and fuel The past records on usage of water, electricity, telephone, postal service, and fuel in public offices clearly substantiate that most civil

2. For instance, there were 83 units or sections in 10 ministries dealing with land administration.

servants disregarded basic expenses of the government as they did not have to share the burden. Besides, suppliers of those facilities are public organizations themselves, thus imposing no painful penalties on overhanging debts. Civil servants are thus hardly motivated to economize on the use of public utilities and fuel.

E. Pension Table 2.9 demonstrates one outcome of the government's long-term employment contracts. Pension payments accumulated constantly from 3.5% of all budget any appropriations in FY 1984 to 4.2% in FY 1990. This continual increase is one consequence of the government's employment policy. While the public pension scheme may promote national savings over the long time span, the method of the present scheme draws all pension payments from current government revenue with no build-up of savings fund. Therefore, the scheme does not directly enhance current savings.

F. Healthcare expenses Civil servants disbursed plenty of these expenses each year, since the government entitles not only them but also their parents, spouses, and children as well. Though such rights have to be exercised at state hospitals which are cheaper than private ones, these welfare benefits generated a rising burden on the government, or from 1.4% of all expenditures in FY 1984 to 3.1% in FY 1989.

G. Subsidies On several occasions, the government provided subsidies for certain industries or activities or undertakings due to certain rationale. Over time, when circumstances changed and subsidies became less essential, the government failed to curtail subsidies to proper levels. On other occasions, subsidies were needed but by only a few target groups. Yet, the government unnecessarily extended blanket subsidies, generating excessive burden upon its own budget.

2.3 Private Businesses

Along the course of production, there are various steps which private businesses can upgrade efficiency without forgoing either quantity or quality of final products. Once that can be achieved, profits or savings capacities of those businesses are definitely enhanced. Due to their vast varieties, drawbacks of resource utilization will not be pinpointed here. Instead, a part of Section 5 will indicate some primary principles which, if adopted, will contribute to more efficiency in numerous private production processes.

3. Econometric Investigation of Household Saving

This section presents the result of an econometric investigation of household saving in Thailand using pooled data from the 1975/76, 1981, 1985/86 and 1988 Socioeconomic Surveys. There have been many econometric studies of household saving in Thailand.³ These can be separated into time series and cross-section studies. The data sources for these studies were also similar. Time series studies used National Income Accounts data. The early cross section studies utilized the Consumption Expenditure Survey (CS), later ones used the Socioeconomic Surveys (SES). Some studies used the Bank of Thailand's Saving Mobilization Project data. For the method of estimation of the saving function, ordinary least squared was most frequently applied.

3.1 Review of Previous Results⁴

From the previous studies, the main determinants of household saving behavior can be separated into economic and demographic variables as follows.

a) Economic Variables

(i) Income is positively associated with saving (as expected). This is true of many different income concept such as current income, permanent income, as well as the rate of growth of income. Empirical studies supported not only the Absolute Income hypothesis, in which saving depends on current income, but also the Permanent Income hypothesis, in which household saving depends on permanent income and transitory income (frequently represented by lagged saving). As a result of instability in household current income compared to consumption needs, the Marginal Propensity to Save (MPS) out of transitory income exceeded that out of permanent income.

Support for the Life Cycle Hypothesis appeared mixed. Some studies found the average propensity to save initially increasing and then declining with the age of the household head. Other studies found the opposite.

(ii) The distinction between wage employment and self-employment was found to affect household saving. Using National Accounts data, Kosiyanon (1974) and Jansen

3. See HRS Program, TDRI, "Literature Review of Household Consumption and Saving in Thailand," Working Paper H14, Thailand Development Research Institute, July 1989.

4. Mainly from above cited review.

(1987) found that saving out of non-wage income was higher than from wage income.⁵ Jansen (1987) interpreted the higher propensity to save of self-employed households to mean that these households have an incentive to save more because they always confront uncertainty and need funds for investment and working capital, but their access to sources of credit is somewhat difficult. Sussangkarn et al (1989), using cross-section data however found that it is the agricultural own-account households that save more.⁶ Following Jansen's argument, it may be because of the relatively imperfect capital market faced by agricultural households. Sirichareonseng (1987) also found evidence consistent with this by showing that only farmers owning land (mostly the self-employed) have high marginal propensity to save, while agricultural laborer's households had low marginal propensity to save.⁷ Sussangkarn et al (1989) also found that households headed by government employees saved less. This was explained by the availability of pension and social security schemes for government employees.

(iii) There is no clear evidence on the impact of the rate of interest on household saving. On the one hand, an increase in the rate of interest increases the return to saving and should therefore increase saving. On the other hand, an increase in the interest rate should increase household wealth, because of higher returns from the current assets of households. Thus, the incentive to save out of current income may be less. Some empirical studies found household saving to be positively associated to the rate of interest, while others found the reverse. However, wealth appears to be negatively correlated with saving controlling for income (Sussangkarn et al, 1989). This is consistent with the permanent income hypothesis in that if wealth is larger at given income, then as wealth is likely to correlate with permanent income, the transitory part of income is less leading to less saving.

5. Kosiyanon, Lily "The Behavior of household Saving in Thailand," Ph.D Dissertation, U. of Oregon, 1974. Jansen, Karel "Finance, Growth and Stability: Financing Economic Development in Thailand, 1960-1984," Vrije Universiteit Te Amsterdam, 1987.

6. Sussangkarn, C., J.R. Behrman, Y. Chalamwong, M. Phananimamai, and P. Pattamakitsakul (1989) Population and Economic Development in Thailand: Some Critical Household Behavioral Relations," Human Resources and Social Development Program, Thailand Development Research Institute.

7. Sirichareonseng, Suree "The Household Saving Behavior under an Alternative Saving Concept: an Analysis of Cross Section Data," Master's Thesis, Thammasat University, 1987. See also Mason, Andrew, Varai Woramontri and Robert M. Kleinbaum "Domestic Resource Mobilization: Analysis of Thai Survey Data," in HOMES Research Report No. 3, 1987.

(iv) Inflation was found to be strongly associated with the ratio of saving to household income; see Sussangkarn and Cripps (1986) and Jansen (1987).⁸ Inflation leads to a decline in the value of household financial assets, and may encourage more saving as households aim for some balance between current income and the future income stream.

(v) There is strong evidence that lumpy components of household consumption, such as durable purchases or medical expenses, negatively affect current saving.⁹ These expenditures are lumpy over time, i.e. expenditures may become very large in a particular year, and would be expected to lead to less saving in the particular year in which they occur.

b) Demographic Variables

(i) The relationship of household saving and household size is negative as household numbers increase, household consumption will also increase, leading to less household saving (given income). Household composition also affects saving. Given household size, if more of the members consist of children younger than 12 years old, then saving increases. This seem to indicate that children require less consumption than adult members of the household. The importance of household size and household composition for saving has been recently investigated in detailed by Bauer et. al. (1992).¹⁰

(ii) More educated head of households appeared to lead to less saving, other things the same. This is consistent with human capital being another form of wealth, so that with higher education there is assurance of a likely higher future income stream, and therefore less need for current saving. There is also slight evidence that there is some substitution between saving and education of the children; presumably for the same reason as above given that children are expected to contribute to supporting the parents as they get older.¹¹

(iii) The variation of the Marginal Propensity to Save across regions and between rural and urban areas does not show a clear pattern. Households in Bangkok appeared to

8. Sussangkarn, Chalongsob and Francis Cripps "External Constraints on Thailand's Economic Growth: Past Trends and Future Developments," Macroeconomic Policy Program, Thailand Development Research Institute, 1986. Jansen (1987) op. cit.

9. Sussangkarn et al (1989), op. cit.

10. Bauer, J., S. Hutaserani, S. Kuandachakupt, A. Mason, M. Phananimai, and P. Phapormyont "Family Size and Family Welfare in Thailand," East-West Center, Hawaii, 1992.

11. Sussangkarn et al (1989).

have slightly lower MPS than those elsewhere, but the findings are not uniform. On the other hand, Sussangkarn et al (1989) found that municipal households have lower average saving rates than elsewhere. The same is true for households in Bangkok, the Central and Southern region compared to those in the North and Northeast.

In general, the pattern across the various studies reviewed above showed that the following variables significantly affect consumption and saving: income, wealth, occupational groups, inflation, household size, age composition, and human capital. The time series studies have not included many of the demographic and household structure variables, due to lack of data. The cross-section studies can include most of the variables, except for such variables as inflation and interest rate. However, the cross-section studies can only investigate the saving pattern from a single year's survey, and cannot adequately capture the changes in saving pattern that occurs over time. In this study, we use pooled SES data from 4 different surveys to combine the benefits from cross-sections and time series analyses.

3.2 Data Source and Variables

a) Data Source

We use pooled Socioeconomic Survey data from the 1975/76, 1980/81, 1985/86 and 1988/89 surveys. One problem with using pooled SES data that has to be tackled has to do with the fact that income and expenditure data from SESs are normally inconsistent with National Accounts data. Thus, while the analysis of the SES in any particular year may be adequate in indicating the variation in saving patterns across households in that year, pooling SESs for different years may give a misleading picture of the variation in saving across years. Table 3.1 indicates the total household income and expenditures from the various Socioeconomic Surveys and from the National Accounts.¹² It can be seen that the SESs tend to understate both income and consumption when compared to the National Accounts. In this analysis, we assume that the SES for a particular year adequately capture the relative income and expenditure patterns across households, by the National Accounts data better represent income and expenditure patterns across the different years of the analysis. Thus, we adjust the income data in the SES for each year by a factor equal to the

12. Socioeconomic surveys are normally carried out across two years, eg. 1980-81, 1985-86 etc. However, income data normally refer to the earlier year of the survey, thus Table 3.1 compares data for 1975, 1980, 1985 and 1988.

ratio of the total household income from the National Accounts to that from the SES. Thus, for the 1975/76 survey, the total income of each household is multiplied by 1.34; for the 1980/81 survey, by 1.50 etc. Household expenditures are similarly adjusted, so that for the 1975/76 survey the total expenditure of each household is multiplied by 1.16; for the 1980/81 survey, by 1.32 etc. This ensures that the average household saving rate for each year in the pooled data is equal to the average household saving rate as reported in the National Accounts.

b) Dependent Variable

In this study, we are interested in explaining household saving rates. Thus, the dependent variable to be explained is the saving rate of each household (in percent).

c) Right-Side Variables

Table 3.2 gives the right-side (independent) variables used in the analysis. These can be divided broadly into economic, demographic, occupational and locational variables.

(i) The economic variables cover income, wealth, interest rate and number of bank branches per capita. The income variable is the real household income (at 1986 prices) per household member. The Consumer Price Indices (CPI) for each region (1986 = 100) is used to deflate nominal per capita household income to obtain real per capita household income. The square of real per capita household income is also included. The wealth variable is the ratio of wealth indicators to household income. The indicator of wealth is constructed from housing expenses (under the assumption that housing status is an indicator of wealth) and other property income.

Together, the income and wealth variables measure the impact of permanent and transitory income on household saving rate. Wealth seems to be a better measure of permanent income than the income that a household receives in a particular year, which can be affected by various transitory shocks. Thus, given two households (A and B) with the same income in a particular year, if the ratio of wealth to income of A is bigger than B, this indicates that the permanent income of A is larger than B, even though in that year their income is the same. According to the permanent income hypothesis, consumption is related to permanent rather than transitory income. Thus, A's consumption should be larger than B's consumption. Alternatively, A's saving out of current income should be

less than B's. Thus, according to this hypothesis, one would expect the household saving rate to be *negatively* related to the ratio of wealth to income. On the other hand, given the ratio of wealth to income, if current income increases, this also indicates that permanent income also increases (as wealth is assumed to increase along with income). Thus, the impact of the real income variable (and the squared term) would measure the impact of permanent income on household saving rate (given the ratio of wealth to income).

The interest rate variable is the real interest rate for 1-year fixed deposits. It is the difference between the nominal 1-year fixed deposit rate (available for each year of the survey) and the inflation rate (available by year and by region). The impact of this variable will measure the sensitivity of household saving rate to the real rate of interest.¹³ Finally, the number of bank branches by region is used together with regional population to compute the number of bank branches per million population. This variable is intended to measure the impact of the extensiveness of the formal financial institution on household saving rate.

(ii) The demographic variables covers the age and education of the household head, household size and the number of children (aged 0-4, and 5-10) in the household. The education variable can indicate the degree of substitutability between human capital as a generator of future income and therefore future income security, and saving, which is another avenue towards future financial security. If this substitutability is true, one would expect a negative association between education and saving. On the other hand, education may also be associated with better awareness of future security needs, and therefore may be positively associated with saving. Thus, a priori, the association between education and saving is unclear. The age of the household head tests for possible life-cycle patterns in saving rates.

Household size and the number of children test for the impact of household composition on saving. Generally, children tend to consume less than adults (although this might be reversed if educational expenditures are large). Thus, given household size, more children in the household may tend to lower consumption and hence increase saving. The household size variable tests for economy of scales in consumption impact. However, given the number of children, an increase in household size basically means an increase in

13. As we only used four years of the SES, nominal interest rates are only observed at four points. Therefore, we did not include the nominal interest rate separately from the inflation rate.

the number of adults, so the ratio of children in the household falls. Therefore, given that children consume less than adults, the saving rate should decline, unless there are large scale economies in consumption. To consider pure scale economy impacts, one needs to keep the ratio of children in the household constant while increasing household size. This can be ascertained from the estimation result by using the parameter estimates on the household size as well as the number of children variables. It should be noted that, in the estimation, per capita household income is held constant, so that the estimation does not directly measure the impact of larger household size on saving through a reduction in per capital household income.

(iii) The occupational variables cover the occupation of the head of the household. From previous studies, own-account households appear to have higher saving rates than non-own-account households. In this study, we separate the own-account households into those who are engaged in agriculture and those in non-agriculture. For each type we want to study the impact on saving rate of the scale of own-account operations. For agricultural own-account households, we use the size of owned land per capita, and for non-agricultural own-account households we use the wealth indicator per capita. We also have a dummy for agricultural non-own-account households, and for government households.

(iv) The locational variables are dummies for the various regions (in comparison to Bangkok), and also for the municipal areas in the various regions).

The descriptive statistics of the right-side variables are given in Table 3.3.

3.3 Estimation Result

Table 3.4 gives the estimation result. In general, the estimation is fairly satisfactory, with about 30% of the variance of the saving rate explained.¹⁴ The results are described as follows.

(i) Economic Variables

As expected, the ratio of wealth to income (WEALTHY) is strongly negatively related to saving rate. This follows from the permanent income hypothesis as explained

14. Normally, if household saving, rather than household saving rate, is the dependent variable, the degree of explanation would be much greater than 30%. This is because saving increases strongly with income.

above. Given the ratio of wealth to income, changes in real household income per capita indicates changes in real permanent per capita income. The result shows that saving rate first increase with income then declines. The peak saving rate occurs at a real per capita household income of about 44,500 baht per person. Most of our sample have real per capita income well below this, so that the result implies that for the majority of households saving rate increases with income. Only for the very rich households do the saving rate begin to decline with income.

The real interest rate positively and significantly affect the household saving rate. This is accordance with economic rationale (in particular as income and wealth are controlled for). However, the impact is not large. For a one percent increase in the real interest rate, the household saving rate increases by only 0.227 percent. Thus, the implication is that it would be very difficult to bring about large increases in the household saving rate through increases in the real interest rate. To get a one percent increase in the household saving rate, the real interest rate would have to increase by about 4.4 percent.

The number of bank branches per capita positive affect the saving rate. This indicates that making formal financial institutions more accessible to the population is a way to promote household saving.

(ii) Demographic Variables

The number of children aged 0 to 4 (CH04) have the expected positive association with the household saving rate, given family size. This indicates lower consumption needs of children in this age group. For children aged 5 to 10 (CH05-10), the coefficient is no significantly different from zero. This may mean that schooling expenditures become important, so that the total consumption of children in this age group is equivalent to that of an adult. The household size variable has negatively significant coefficient. This indicates the partial impact of increasing household size while keeping the number of children constant (and also per capita household income). The negative coefficient means that the negative impact on saving of a decline in the ratio of young children in the household outweighs any positive impact on saving that may come with economy of scales in consumption. In fact, the result appears to show some diseconomy of scales in consumption. For an average household, the average size is 4.6 with 0.47 children in the 0 to 4 age group, or 10.2% of the household (Table 3.3). If household size increases by

one, while keeping the ratio of children aged 0 to 4 constant (i.e. increasing the number of children aged 0 to 4 by .102 person), then the household saving rate declines by -0.1 percent.

There is some weak evidence of household saving increasing with the age of the household head (the coefficient on HAGE is positive but only significant at the 10% level). As this controls for per capita household income and wealth, this indicates higher consumption needs for younger household heads, and fits with what one might expect from life cycle arguments.

The education variables are not significant. This indicates that the impact of substitutability between future income security through human capital and through financial saving is compensated by other factors, such as better awareness of the need for future financial security of the more educated household heads. It may also be because better educated heads would invest more in their children's education.

(iv) Occupational Variables

The result indicates (as found in many other past studies) that own-account households tend to save more. Saving rates increase as their scale of operations increases (as measured by land holding for agricultural households and wealth for non-agricultural households), then declines as the scale of operation reaches a certain size. Imperfect access to formal money markets for working and investment capital can explain this pattern quite well. For very small scale operators, access to formal financial markets may be limited. If they have to resort to the informal money market, then the interest rate would be very high. Thus, there is an incentive to finance capital needs with own saving as much as possible. However, as the scale of operations increases, the owner-operator presumably has more access to formal money markets, and therefore the incentive to finance capital needs from own saving becomes less.

For agricultural non-own-account households (agricultural laborers), the result does not show any difference in saving pattern from non-agricultural labor households. The surprise in this result is the coefficient on the government dummy, which is positive and significant. This is in contrast to some earlier results which showed that government

households tend to save less.¹⁵ As government employees have pension schemes, the need for saving for old age security appears to be less. However, an important factor which may counter this is the fact that government employees have access to almost free medical treatment for the whole family. From a previous study (Sussangkarn et. al., 1989), it was shown that medical expenditure shocks is a major determinant of saving reduction, thus those not in the public sector are more prone to such shocks and would tend to save less.

(v) Locational Variables

Finally, the locational variables show that households in Bangkok tend to save less than those elsewhere. The only exceptions to this are households in the rural South and rural Central regions. In the rural South, households have lower saving rates than in Bangkok, while there are no significant difference between households in Bangkok and in rural Central region. Generally, one would expect more conspicuous consumption in Bangkok and the result appears to bear this out. The result for the rural South may reflect cultural factors. It should be noted that household saving rates in the North, Northeast (rural and urban), and urban South are about 8 percent higher than in Bangkok.¹⁶

4. Savings Formats and Behavior

Ever since 1988 the country's savings gap was entirely caused by the private sector so it is worth analyzing savings formats and behavior of private agents. Thorough understanding in these regards will help in designing appropriate savings incentives.

Ordinarily, private savings occur in 3 formats: deposits or claims in financial markets (FIN), claims in unregulated markets (UM), and some permanent assets (PA) such as real estate, houses or condominium. Given investment needs, the Authority can pare down the shortfall of private savings by two ways, i.e. increase total savings ($= \text{FIN} + \text{UM} + \text{PA}$) or converting UM and PA into FIN because once savings take the FIN format, the government has a better grip on their volume, direction, and efficiency of usage than when savings crop up in UM or PA. Section 2 of this study deals with wasteful spending and the possibility of improvement. That will lead to the enlargement of savings capacity

15. See Sussangkarn et. al. (1989), op. cit.

16. Note that this refers to saving rates and not total savings. As Bangkok contains a disproportionate amount of the Nation's income, its total saving would be much greater than for other regions.

or an increase in the aggregate of FIN + UM + PA. What follows will focus on formats of savings and any means to transform UM or PA into FIN. Should one examine the successful savings campaign in Japan as a paragon, he will agree that viewpoint or value judgement of the general public deserves immediate attention.

In the Thai private sector, the following factors heavily influence decisions on savings with respect to their formats as well as extent.

A. Steadiness of income This comes into play before other factors when households as well as private businesses wonder whether they should save now, and if so, how much and in what formats. Section 3 of this study provides evidence that independent or own-account households are readier to save than households which count on regular income from wage earnings or assets such as interest or rentals.

Once basic reasoning comes into consideration, the above finding is not surprising. The own-account households tend to face high income fluctuations and economic variations. For instance, prices of agricultural products vary in consonance with world prices, while domestic production is contingent upon weather condition. Therefore, their income streams tend to be volatile and these entrepreneurs or farmers need financial bufferstocks. They are willing to build those bufferstocks whenever possibilities arise. Such bufferstocks are savings or accumulated earnings in various formats. The results in Section 3 as well as earlier studies endorses the above hypothesis. The implication is that self-employed households have an incentive to save more because they always encounter uncertainties and need funds for investment or working capital.

Another factor which motivates the own-account to save more than the non-own is that the former often faces obstacles in obtaining credits from financial institutions, since their income streams are rather unstable while their collaterals are either insufficient or even absent. Because of such income volatility and scarce credit access, the own-account opt to save whenever they can and keep those savings in the most readily available format. In other words, these households are more willing to fund their operating costs plus additional investment by their own savings than by credits from informal money markets which typically charge exorbitant interest rates.

B. Residence and environment From the analysis in Section 3, households in the Bangkok metropolis tend to have lower savings rates than those upcountry. This may be related to their wide exposure to available goods and services or consumption items.

C. Prevalent attitudes among most Thai savers are as follows. (1) Savings should be kept at places from which credits can be drawn. (2) Liquidity is always preferred. (3) Few savers are far-sighted. Behavior of savers in almost every region and every period of time corresponds to the above-mentioned attitudes. For instance, between 1990 and 1992 small bank deposits (not exceeding 100,000 baht per account) amounted to only 12% of all deposits in the banking system, indicating that low-income people tend to keep their savings in other formats from which they can draw credits, e.g. at share circuits. Past experiences of savings cooperatives, credit unions, and savings groups in Thailand also confirm that most of their members wish to borrow, instead of deposit.

Proportion of Bank Deposits Classified by Sizes

(per cent)

	<u>1984</u>	<u>1986</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
1. Below 100,000 baht	20.5	18.2	12.9	11.7	11.4
2. 100,000-1,000,000 baht	33.0	32.4	29.6	26.4	26.1
3. Above 1,000,000 baht	46.5	49.4	57.5	61.9	62.5

Source: Bank of Thailand

Access to credits turns out to be an important stimulus to save not only in Thailand but also in other developing countries as well. Fischer¹⁷ agreed with such conclusion in the study which summarizes analyses on savings in Bangladesh, India, Indonesia, Turkey, Botswana, Ivory Coast, Cameroon, Kenya, Nigeria, Brazil, Columbia, and Peru.

Maturity profiles of promissory notes issued by finance companies reassure that most Thai savers prefer liquidity, because though those companies steadily offered higher interest rates than commercial banks, 93-99% of the funds that they tapped from the

17. Fischer, Bernhard (1986), "Savings Mobilization in Developing Countries: Bottlenecks and Reform Proposals," The Kiel Institute of World Economics.

general public did not have maturities beyond 1 year. And such behavior prevailed before, during, and after several finance companies encountered severe crises in 1979 and 1984.

The structure of household savings when classified by financial institutions at which those savings were placed (see Table 4.1) shows that very few Thai households were far-sighted, since savings located at insurance companies, cooperatives, and credit fonciers amounted to very small portions (or each of these was below 3% of total household savings). A majority (or 73%) of savings were kept as bank deposits. That is unsurprising because commercial banks not only offer convenience owing to their well-scattered branches but also generate no long-term commitments as other financial institutions. Another evidence of the predominant lack of far-sightedness is investment in the Stock Exchange of Thailand. The majority of such investments by Thai households were done for short-term speculation, or not for returns in the long run such as dividends. Under the atmosphere as described above, chances are slim that the government will succeed in stimulating savings by offering special privileges to long-term commitments.

Another noticeable feature of household savings in Thailand is that the savings behavior in this sector appears to be relatively little affected by policy variables (e.g. interest rates, interest income tax). That is so probably because other objectives of savings are more important than rates of return. Therefore, the savings mobilization measures which hinged upon returns did not work well in the past. As for inflation, though a high level can attract some savings into permanent assets, once the speed of price rise subsided in the past decade (1982-92) at the level around 4% p.a., most households hardly take this factor into account ahead of time. Savings are often resorted to as a residual accommodating any inflationary pressure.

Nevertheless, interest rate and inflation are significant determinants of business savings. Ordinarily, private businesses view interest rates as representing one type of costs. Business savings thus tend to move in the opposite direction to interest rates. Furthermore, inflation is more meaningful to businesses than to households because higher inflation signifies good prospects for profits and savings. Private businesses normally consider several factors before deciding to save, for example, potential business volume in the near future, the likely trend of costs as compared to returns, and pertinent tax burden. The situation is more puzzling when the business under analysis falls into the category of own-account or unincorporated enterprises. Owners of those businesses may record their

profits as belonging to either themselves or their enterprises, depending upon tax burden or upcoming economic condition. One should therefore not be amazed to observe that sometimes in the past the savings statistics of households and businesses moved in the opposite direction (see Table 4.2).

One character that private businesses have in common with households is the preference for keeping savings in liquid tools, e.g. short-term deposits at financial institutions or share circuits. Dr.Siri Ganjarerndee et al (1986) asserted that credit rotating arrangement or chit funds among friends or colleagues or neighbors were popular, especially in the Bangkok vicinity and the South. While family cousins or office colleagues often constitute one type of share circuits, businessmen in similar or related fields organize others, e.g. among traders of crops, tapioca, canned food. Although business shares do not yield as high returns as personal shares, they are still aimed towards the same objective, i.e. easy credit access. And in several cases, particularly for small- or medium-sized businesses, share circuits represent the only means to borrow funds because financial institutions tend to by-pass those businesses due to either lack of collaterals or low credit rating.

Statistics from the commercial banking system immediately confirm that most bank credits were allotted to large and well-accredited clients who were charged below maximum interest rates. In 1990 those credits added up to 69% or roughly two-thirds of all bank credits. By the middle of 1992 even though the Central Authority already liberalized domestic money markets and relaxed exchange controls in several rounds, a dominant portion of commercial banks' debt outstanding (around 70%) still belonged to prime customers who were priced below the interest rate ceiling of 16.5%. It cannot be concluded that banks discriminated against small clients, since banks can charge higher interests from those clients to compensate for more risks. The actual reasons why banks favored large and reputable customers are that big sizes of credits help economize the cost of debt monitoring and that the admirable financial status of high-ranking debtors relieves banks from the task of diversifying clients for the sake of lowering risks. Owing to these extra-benefits, commercial banks frequently entice large customers with low interest rates.

Some may argue that the above-mentioned scenario is changing due to various liberalization measures such as exchange control deregulation and establishment of Bangkok International Banking Facilities. Consequently, commercial banks may give more

weights to small clients, as large ones have more access to foreign credits. Ideally, that may be true but practically every party needs time and effort to adjust. For instance, though banks will give small clients more chances for credit negotiation, collateral requirements still remain. And that represents an important and enduring predicament of small or low-profile borrowers.

One notable characteristic of the financial system dominated by commercial banks is related to maturities of deposits. Normally, commercial banks are short-term institutions which always desire flexibility in managing their financial portfolios. That is so since liquidity in both local and international money markets can fluctuate very rapidly. Banks thus tend to avoid long-term commitments and if necessary, will hinge upon a floating-rate basis. On the part of depositors, they also prefer short-term and roll-over commitments for the sake of flexibility and safety. Because of this same inclination of both parties, liquidity fluctuations and financial crises in the past two decades lowered maturities of household savings in Thailand to a large degree. Such situation can incur liquidity crises in the country, as most economic development projects tend to involve extensive time periods before adequate returns will come.

Maturity Profiles of Household Savings in Thailand

(Per cent)

	<u>1967-72</u>	<u>1973-78</u>	<u>1979-84</u>	<u>1989-90</u>
Within 1 year	61.6	75.2	76.7	86.9
Beyond 1 year (including equity)	38.4	24.8	23.3	13.1

5. Measures to Motivate and Mobilize Savings

In the 1990s waves of financial liberalization hit most money markets around the world and Thailand is no exception. The Thai Monetary Authority equips market participants with more freedom in numerous respects, e.g. interest rates, exchange controls, and scope of operations. Amid such atmosphere, interest rates are unified across borders and market force or competition is allowed to play a leading role. Within this scenario, interest rate or net return is not the name of the game anymore in the

manipulation of domestic savings. At the current level of low interest rates worldwide, savers are hardly attracted by returns from bank deposits¹⁸, whereas commercial banks care less about tapping local deposits, since foreign cheap credits are readily accessible. Worse yet, as financial institutions are given more lines of businesses, their attention has moved from interest earnings to fee-based activities such as stock underwriting and financial consulting. Therefore, along the present attempt to mobilize savings, savings ought to be viewed as a "real" variable. To enlarge savings means to economize in spending or to raise efficiency of expenditures. Section 2 of this study indicates inefficient uses of resources by households, state agencies, and private businesses. What follows will suggest methods to rectify those inefficiencies in the three sectors separately.

Households

Before the government implements any measure to compel or stimulate consumers to save, it should take into account the degree of expenditure response to percentage changes in income or the so-called income elasticity. This elasticity will help indicate the potential effect that government's measures may have or how well they can convince consumers. Ordinarily, essential items have income elasticity lower than 1, or when income decreases by 1%, consumers cannot reduce that expenditure by 1%. Conversely, luxurious items have income elasticity greater than 1.

In 1987 Andrew Mason and his team¹⁹ estimated income elasticities of different expenditure items of Thai families by resorting to data from SES. Their results conform to expectations. That is, the elasticity of food items is the lowest because of necessity while that of entertainment is the highest (see Table 5.1). What should be noticed from this Mason study is that the income elasticities of the two expenditure items singled out in Section 2.1, i.e. clothes and shoes, transport and communications, are high and beyond 1,

18. At this point one should not be misled by the recent popularity of securities trading in the Stock Exchange of Thailand (SET). Thus far, the SET has not yet been developed to the extent that rural residents or a huge portion of savers have access to investment opportunities in the SET. Not only are few outlets of stock brokerage facilities stationed in remote provinces, but the number of mutual funds (which are designed and meant for small investors) is still limited. Recent booming of SET trading volume was very much attributed to large investors and institutions especially those from abroad, but not to small savers or rural residents.

19. Andrew Mason, Varai Woramontri, Robert M. Kleinbaum, HOMES Research Report No.2, Consumer Expenditures in Thailand: An Application of HOMES, East-West Population Institute, East-West Center, November 1987.

i.e. 1.29 and 1.71 respectively. These elasticities suggest that if the government tries to persuade consumers about these two items of spending, such effort will not be in vain.

A. Clothes and shoes Once this category is given thorough consideration, two outstanding features can be observed. First, these commodities are fairly long lasting provided they are cleaned up and well-kept. Second, consumers are often influenced by updated fashion. They thus tend to buy a new series of clothes and shoes though the old ones are not worn out yet. Moreover, most consumers do not rotate their old clothes or shoes to other people by any means, as if those items serve in tracing recollections. Such behavior demonstrates a lack of efficiency in resource utilization. Therefore, one possible means to improve the efficiency is to recycle those unexpired products for more use via repurchasing and renovation or repair. After some repair or renovation is done, they may be resold at the prices which yield some profits. As regards marketing, some may doubt the success of retailing those refurbished items. But statistics in Table 2.4 hint that recycling those items in upcountry provinces will not encounter any marketing problems because consumers in poor regional provinces allocate higher proportions of their budgets to clothes and shoes than people in the Bangkok metropolis. And the overhauled commodities will definitely be marketed at the prices lower than those of new ones or not beyond purchasing power of upcountry consumers. Marketing mended second-hand products at low prices is equivalent to increasing income of consumers. Therefore, the income elasticity of greater than one as mentioned above implies that those renewed items will meet with favorable market response.

In short, along the economic growth path, the recycling of used clothes and shoes will help economize resource use in the country and raise savings capacity of previous owners as well as buyers of overhauled items. What those recycling businesses need is encouragement from the government in the forms of tax privileges, concessional credits, or big-lot purchase for official use.

B. Transport and communications As mentioned earlier, high-income people are more inclined than low-income groups in this regard. The government should pursue measures which would tempt residents in cities and municipal districts to pool resources. Pooling will not only save expenses of participants but also minimize adverse spill-over effects such as traffic jam and environmental degradation. One good example of those measures is to set up a center for assimilating and disseminating information about people

willing to join car pooling programs. The collected information should include car size, available space, locations of offices and residences, telephone numbers, travelling time and persons. These data ought to be posted at large offices of the public sector and private enterprises. Moreover, they should also be available at central organizations in residential areas as well, e.g. district or police offices.

Besides setting up an information network for disseminating data on car-pooling, the government should encourage efficient mass transit in various format. Mass transit immediately lowers unit cost. One alternative to mass transit is to organize bus lines for large organizations such as state enterprises or residential villages.

Over the long run, the government should try its best to educate most consumers on the worthiness of resources and what can be attained from efficacious usage. To ensure full and correct awareness on the part of consumers requires the following two points: (a) If resources are wastefully or imprudently used, what will be the most likely outcome on consumers and their society? (b) If consumers wish to use resources appropriately, what principles should they adhere to? The most effective route to educate consumers is by incorporating these matters into school curriculum because typical young children are not only receptive but also retentive.

State Agencies

To resolve the problems of state agencies as stated in Section 2.2 (too much personnel, too many organizations, construction works, public utilities and fuel, pension, healthcare expenses, and subsidies), the recommended means are grouped into 4 categories.

- A. Amending rules and regulations, steps and coordination, organization and assignments of units.
- B. Pooling and coordinating resource use among or across various units.
- C. Increasing the role of private parties in some tasks of the government.
- D. Evaluate and screen all investment projects before implementation.

A. Rules and regulations It was suggested earlier that the public practice of permanent employment of staff be limited for the sake of controlling expenditures on salary or optimizing usage of personnel. Transfer or switching will also help in those regards and

reduce the pressure of setting up new units for the purpose of promotion. These means will also be useful in coping with the problem of poor personnel quality in public agencies.

Ordinarily, public offices can hardly afford to compete with private companies by offering high salaries because of their limited budgets. They often compensate for this shortfall by offering employment until retirement. However, the public-private salary differentials make it increasingly difficult for the public sector to recruit the brightest graduates or prevent brain-drain.

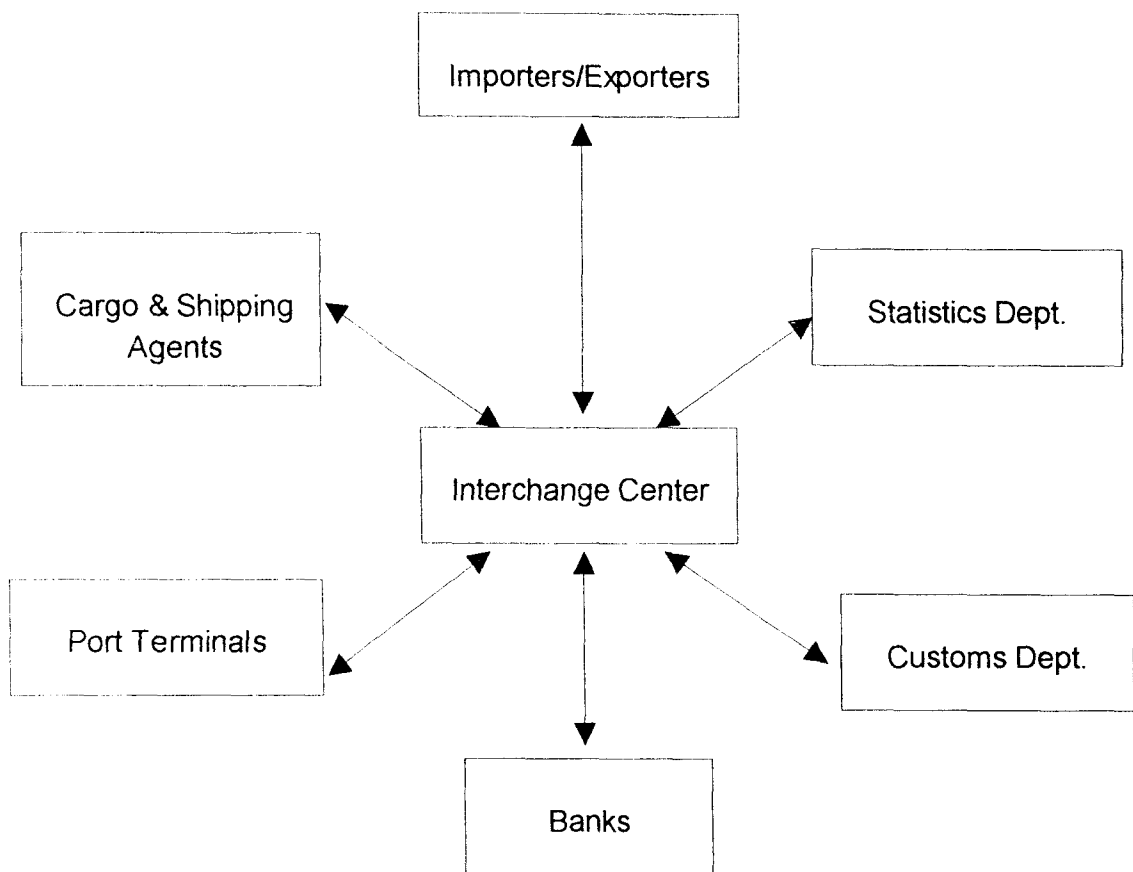
An alternative channel for the government is to offer high pay so that it can compete with private corporations. Simultaneously, the hiring period should be shortened (e.g. to 2-3 years), but renewable. Renewals of those hiring contracts will hinge upon performance of those staff. Pension may be retained but it will depend on the total hiring period. This alternative policy on staff employment can help resolve the problems of scarce quality personnel as well as ballooning compensation to employees in public agencies.

The second aspect of rule improvement involves one criterion in expansion of agencies, enlargement of manpower slots, promotion, and staff evaluation. In the past, one common criterion for these four decision-making topics is the number of personnel involved. What deserve more attention are the factors directly related to those four crucial decisions, for example, the importance of agencies, the actual need for manpower, true qualifications of executives, and genuine quality of work performance, respectively. If the present framework of regulations remains unchanged, it will continue to generate problems. For instance, excessive personnel and units arise because they favor chances of promotion and salary increase.

The final aspect of rule adjunct is to induce civil servants to partly share the same stake as the government. In order for such inducement to be fruitful, returns or costs to the government should be linked to compensation of civil servants. For example, the rate of pay rise for any department will depend not only upon its work performance but also upon total costs (e.g. oil, public utilities). The adjustment of rules in this fashion may also include penalty clauses so that civil servants or state employees truly share the same boat with the government.

B Pooling and coordinating electronic linkage of data and information is certainly worth an attempt since it can help coordinate jobs among various public agencies and economize both time and expenses in processing data or information. One good example of such connection is the Electronic Data Interchange or EDI, which is widely used abroad especially in international trade transactions. At present, EDI is already adopted by some large private corporations in Thailand. In essence, EDI collects and exchanges information among various computer terminals of different agencies. It has a center functioning as if it was a cheque clearing house in a banking system. An international trade EDI, for instance, taps and interchanges data with the following parties as displayed in the diagram: importers, exporters, the Customs Department, the Excise Department, cargo and shipping companies, port terminals, banks, and statistical office.

EDI helps economize numerous resources ordinarily used in international trade such as stationery and inventory expenses. According to the study in Europe and the U.S., EDI reduces procedural delays and documents by up to 20% of total costs in trade shipment. It is thus unsurprising that a large number of countries have opted for EDI.



1. U.K. - Trade Net system since 1985
2. Sweden - Transport Data Link system since 1986
3. Japan - Nippon Air Cargo Control system
4. Hong Kong - TRADELINK system since July 1988
5. Singapore - Trade Net system since 1989
6. U.S.A. - CEDN system since February 1989
7. Canada and Australia

The EDI system can serve as a prototype for linking data and information across various public agencies. Other than international trade, businesses that could easily benefit from EDI are land transport, foreign investment, and tourism. Furthermore, the government may exploit more use of EDI by connecting it with Chambers of Commerce, Federation of Thai Industries, and commercial banks.

As the EDI rests upon the principle of coordinating a large number of agencies, reducing both procedural matters and delay, another means of achieving the same objective is to disperse decision making power to lower-level officers. However, when there are many decision making spots which are not aware of one another's decision, an unexpected debacle may happen. Thus, whenever decision making is dispersed, it is safer to install EDI so as to keep all concerned parties informed and updated.

It was mentioned earlier that in several cases, subsidiary jobs of numerous public agencies are similar or even the same. Therefore, one way of reducing those wasteful manifolds is to merge those subsidiary jobs across different agencies. Once formulated distinctly, the central unit can serve those different agencies in a better managed scheduling. Examples of subsidiary tasks which can be centralized in this fashion are road construction, well digging, and small-scale water supply development. This centralization will help develop expertise and curtail unnecessary expenses. Yet, these centralized units must have staff of their own, who are officially transferred from corresponding spots in other agencies. Otherwise, those staff may be unwilling to serve the centralized units.

In some cases, the similar jobs referred to above constitute primary tasks of concerned agencies or units, for example, training department in each ministry or messenger plus transport in the same vicinity. In those cases, the units responsible for similar jobs should be merged and they ought to share same resources.

C. More roles of the private sector This channel is addressed to the situations in which the undertakers or employees do not share the same stake or cost as the government. In those scenarios the only way to upgrade efficiency of spending is to induce spenders to share the burden, and market mechanism or privatization has strong potential to generate such inducement. This line of thought is not new in Thailand. The Thai government did privatize several state enterprises years ago, i.e. even before the first national economic and social development plan (see Table 5.2) so as to ameliorate deficiencies in various state

enterprises. Between the first and the fourth plans, the government adopted three methods to transform state enterprises, i.e. abolition, privatization, and reorganization.

Ever since the fifth national economic and social development plan, the government added another new role to the private sector, i.e. participation in parts of the undertakings. This fragmented participation comes under the format of renting or concessioning. Examples of the state enterprises which had such experiences are as follows.

1. State Railway of Thailand: concessioning the management of food carriers and hotels along its routes.
2. Tourism Authority of Thailand: contracting private companies to run Bang Saen Hotel.
3. Thai Maritime Navigation Co.,Ltd.: contracting private companies to administer the enterprise.
4. Port Authority of Thailand: concessioning the management of the Sattaheap port and container stations at Bang Sue.
5. Saha Thai Hotel and Travel: renting parts of the enterprise.
6. Airports Authority of Thailand: concessioning the duties of cleaning and security maintenance at airports.
7. Telephone Organization of Thailand: contracting private companies to install telephones.
8. Petroleum Authority of Thailand: concessioning the duty of cleaning and using rented cars of private companies.
9. Provincial Water Works Authority: concessioning the duties of cleaning and security maintenance.

Giving opportunities to private enterprises to participate in parts of the government undertakings yields various pluses as demonstrated below.

1. Because of the following three factors, overall costs to the government are lowered: competition among private companies to auction public works, no necessity to invest (and upkeep) in machinery or equipment, no long-term obligations with employees.
2. Quality or efficiency of work is always satisfactory due to competitive market force. Otherwise, hiring contracts may be terminated.

3. As private companies get contracts on similar jobs several times (e.g. cleaning, security guard), they are likely capable to develop special skills or expertise.

4. In some cases, private companies benefit from economy of scale, for example, distribution of documents across numerous agencies. Some of these benefits are shared by the government, e.g. document distribution helps relieve traffic congestion.

5. Contracting private entrepreneurs enables the government to avoid several painful and complicated personnel problems such as salary increase, welfare, and transfer.

6. Commissioning parts of government enterprises to private companies is easier or incurring less political and labor risks than the options of abolition or complete privatization. Furthermore, fragmented commissioning helps the government to retain flexibility in contrast with long-term commitments which often involve both establishment of new units and hiring of new staff.

The following list exemplifies various jobs in public agencies which can and should be privatized.

- Cleaning
- Security guards
- Designing
- Construction
- Maintenance of streets and canals
- Distribution of documents and staff transport

Nonetheless, there are several formidable constraints and delicate issues behind the task of partial or complete privatization. A lucid example of such intricacies is the case of second-stage expressway project in which clear-cut division of derived benefits was unsettled. Therefore, two cautions are noteworthy in this regard. First, the process of drawing up contracts need to be done very carefully. Second, good coordination across different privatized projects may be necessary. Otherwise, conflict of interest could arise.

D. Project appraisal before implementation Appraisal should be done with respect to technicalities and financial implications. And it ought to be completed before being included in any national development plan or authorized by any executive committee. Otherwise, those projects, some of which may not be worth, may be pursued by quoting the national development plan or executive endorsement.

Private Businesses

The following shows some important principles which, once adopted, will help reduce inefficiencies at various stages of private businesses' production.

A. Economy of scale and resource pooling Typical small enterprises lack some production factors because those factors are either too expensive or suitable for too large a production scale. At the same time, some large enterprises do not utilize the full capacity of their production factors, thus blocking those investments from breaking even. In these cases, two solutions are evident: (a) pooling several small businesses to share investment and usage (b) large businesses allowing small ones to share usage and collecting fees in accordance with the extent of usage. Such resource pooling can also bring about extra benefits other than cost sharing. The following list exemplifies different activities that can exploit upon the above-mentioned economy of scale and resource pooling.

- Private hospitals jointly purchase and utilize some expensive medical equipment.
- Pooling of credit-card authorization terminals is similar to pooling of ATMs.
- A staff training center can be shared by a number of agencies. This sharing will help resolve the problem on staffing and also develop the expertise as well as efficiency of trainers. A good example of common training centers is the Energy Conservation Center of Thailand (ECCT) established by the Federation of Thai Industries since 1987. Not only has the ECCT been able to keep itself updated with various techniques of energy conservation but it gains expertise in disseminating knowledge plus information to both households and industries.
- A business information center can serve as a central unit possessing all typical information that most businessmen deem essential, including those on commerce, agriculture, industry, finance, the economy in general, and pertinent rules or regulations. This center will yield mutual benefits to both parties, i.e. saving time for businessmen and reducing interference with the timetable of public officers.

- A marketing guidance office for farmers can help farmers plan ahead about what to grow and to what extent. Data from this office indicate to farmers whether they should change their products, and if so, how.

B. Encouraging specialization by private firms Different lines of specialty (e.g. cleaning, freight and transportation, security guard) serve both private firms and hiring agencies with respect to prices, obligations, development of expertise, and efficient resource utilization.

C. Making use of residuals Industries in Thailand leave behind abundant residuals, which, if brought into play, could help lower costs. Examples of those productive residuals are the remains from production of canned pineapples, which can generate sugar, while those from sugar industry and rice will can fuel electricity generation.

D. Advanced planning and proper scheduling Planning ahead is undoubtedly useful especially when it is agreed among related industries or those in the same circuit such as fruit juice, canned food, and processed agricultural products. Similarly, proper scheduling can help avoid the brunt of commodity glut or plummeting prices while other items are suffering from severe shortages. The importance of scheduling is immediately evident in traffic planning in the Bangkok metropolis. If schools in different districts rearrange their classhours so that the overall school time staggers while common school buses are operated for each district, traffic congestion in Bangkok can be remarkably reduced. That is so because when all traffic in Bangkok and its vicinity was classified by purposes, travelling between schools and residences amounted to 35% of all traffic on the roads²⁰.

All the above-mentioned methods of enhancing expenditure efficiency and thus savings capacity of households as well as private businesses should be urged by the government by two means: publicizing principles or details and providing some special privileges. Examples of those privileges are tax deductions or partial tariff exemptions.

20. Dr.Kunchit Pewnual and Mr. Watcharin Bunpot, "Modelling the Relationship Between Traffic in Bangkok Plus Its Vicinity and Its Causes," Chulalongkorn University, December 1990.

Some stimulation or incentives are necessary, otherwise private entities will hardly alter their long-entrenched behavioral patterns.

Credit Access

In parallel with the efforts at raising efficiency of national spending, the government should pursue the possibility of improving efficiency of domestic financial markets, which corresponds to Channel 3 as stated at the very beginning of this study or in Section 2. Some existing financial institutions can offer a new service called coupon deposit scheme as a means to capturing savings in unregulated markets. The Government Savings Bank (GSB), in conjunction with the Bank for Agriculture and Agricultural Cooperatives (BAAC) and Post Offices (PO), may open special deposit accounts with groups of persons or share members. Once those groups deposit money at branches of GSB or BAAC or PO on a regular basis for a while, they will be offered credit coupons entitling them to borrow funds from the GSB. Specified in the coupons are the extent of credit lines and expiry dates. Both of these conditions depend on deposit performances of those groups with respect to the sizes of deposits, steadiness, and period of affiliation or customership. The central feature of this coupon deposit scheme, or credit access, corresponds to one of the prevalent attitudes among most Thai savers, as reported in Section 4 of this study. And the two target groups of this scheme are own-account or self-employed units and upcountry households. These targets not only have higher savings/income ratios than their counterparts but also place high value on credit access, as most of their businesses are of small sizes and often neglected by commercial banks because of the lack of collaterals. The following represent several other reasons supporting the suggested coupon deposits.

1. Given that the government has continually enjoyed cash surpluses since 1988, the GSB or the traditional lender to the government is left with plentiful liquidity. The GSB is therefore capable to capture more savings by offering credit lines in exchange.

2. According to the NESDB statistics, income from unincorporated enterprises or own-account units in 1991 added up to 45% of all personal income in the country. And a majority of the country's population still live in upcountry areas without full access to financial institutions.

3. The GSB has a widespread branching network. For example, in 1993 it had 533 branches well scattered throughout the country: 44 in Bangkok, 124 in the Central region, 113 in the North, 46 in the East, 122 in the Northeast, and 84 in the South. This web of GSB is supplemented by numerous branches or stations of the BAAC and PO. Therefore, these networks can help spread the service of coupon deposits to rural residents who have stronger tendency to save than their counterparts.

4. Though the GSB and PO lacks staff who have expertise in credit extension, they can lean on the staff of the BAAC which have wide plus long experience in dealing with small and independent enterprises.

5. This coupon deposit will not crowd out customers or borrowers of commercial banks or finance companies because most of their customers already have firm financial status. Instead, the coupon deposit will attract members of unregulated money markets or share circuits.

6. Credit extension via coupons will not lead to excessive credit risks upon the GSB, since coupons are issued to groups of depositors and users of such coupons are, in effect, guaranteed (without collaterals) by members of their groups, who can'tMs. further use of the coupons if unexpired yet. In other words, a personal guarantee within the same deposit group will help monitor debt on behalf of the GSB because guarantors definitely desire to retain their borrowing rights (under the similar principle as Grameen Bank in Bangladesh).

7. In fact, there are two mechanisms which help reduce liquidity risks to the GSB. First, the borrowing right or usage of coupon is effective only after a series of deposits are made regularly and adequately. Second, pooling a number of share circuits or savings groups will enable the GSB to handle flows of funds without incurring hazardous liquidity shortages.

8. Tapping deposits via coupons as suggested will equip the GSB with an extensive network of fund-flows. If proper scheduling as well as debt-deposit monitoring is steadily maintained, the GSB will not fuel too much spending in the economy.

9. Consistent with the underlying rationale of financial liberalization, the coupon deposit will help strengthen the degree of competition in money markets.

10. The recommended coupon deposits will help build up the culture of steady saving in the Thai society. Furthermore, it will reduce savings in unregulated money markets, while raising the efficiency of savings utilization.

In order to ensure a success of the coupon deposit scheme, the government has to emphasize two essential characteristics, otherwise potential customers or share players may not be attracted. First, returns to those coupon deposits must be adequately high or comparable to the ones in share circuits minus the value of safety attached to the GSB. In this regard, the GSB and BAAC deserve some tax privileges from the government. Second, in operating the scheme, the GSB & BAAC must refrain from requiring any stringent procedures or formality. Informality is truly indispensable because it is the core feature of chit funds which steal a large number of customers from the official financial system.

The program of coupon deposits as suggested above will capture more savings at present or postpone spendings to the future. And the GSB can help avoiding the situation whereby enormous expenditures are clustered in any particular period of time by properly fixing rates of returns and/or specifying borrowing rights of coupons. Dispersing expenditures by such means will enable the economy to bypass the crises related to excessive spending of the private sector in any specific time, or the problem of too high current account deficits

Employee Funds

The second method of savings mobilization as suggested above is meant for the self-employed and upcountry households which not only prefer credit access but also constitute an important segment of the economy. Other increasingly powerful components are factory workers and company employees. It was stated earlier that general employees have weaker inclination to save than the own-account. Therefore, the government needs to pursue various measures to encourage more saving from this group. At present the Social Security Fund (SSF) is in operation. The SSF was legally established in 1990 requiring the participation of all private enterprises whose employees total 20 or more. SSF receives contribution of 1.5% of involved compensation from each of the following three parties: employer, employee, and the government. These contributions will serve as welfare provision in four respects: sickness, maternity, invalidity, and death. According to the

current Social Security Act, by 1996 the coverage will be expanded to include family allowances and old-age pensions but contribution from each party may also rise to 4.5%.

In the meantime, the Private Provident Fund (PPF), legalized since 1987, is also operative but on a voluntary basis. PPF comes from willingness of private employers and their employees. While the latter may opt for contributing 3-15% of their compensation, the former are bound to give the same amount. Even though PPF does not yield welfare in various respects as SSF, it equips employees with the accumulated funds plus earned interest or derived income at the time of retirement or quitting. Thus far, PPF has gained considerable popularity as a means to saving. That is substantiated by the fact that by September 1993 there were 708 PPFs totalling 20.6 billion baht or 0.7% of GDP.

As for civil servants, the age-old pension package entitles them to receive retirement funds which come solely from the government. But such package will be modified to the Central Provident Fund (CPF) in the near future, whereby civil servants or state workers must contribute a part (3-7%) of their earnings today while the government will supply a complementary part. Once his employment contract ends, a member of CPF will be given his accumulated savings plus state supplements and derived income. But all will come once and for all, not in continual allotments as in the previous pension plan. This evolution of CPF represents an admirable advancement along the path of savings mobilization. Several forerunners such as Singapore and Malaysia have benefited very much from CPF in successfully assembling plentiful savings. CPF not only yields convenience in savings collection but also generates two other important pluses. First, compulsory deductions from civil servants today help increase current national savings and remind owners of the necessity to save for the future. In other words, state workers will become more aware of their spending patterns. Second, the future financial burden upon the government will be lessened.

For the private sector, both SSF and PPF could be powerful savings mobilizers. However, more incentives are needed for PPF to function effectively as a supplement to SSF. In particular, certain allowances may be granted to PPF beneficiaries in order to reduce tax obligations upon the received funds. For the SSF, careful study and planning will be required so as to find means of avoiding problems with the fund sustainability that many countries previously encountered with their own SSFs.

6. Summary and Conclusions

An international comparison of savings rates across some Asian countries in the past three decades shows that Thailand lagged behind NICs and Indonesia in two respects. Her savings/GDP ratio (26% in 1990) was notably below those of Singapore (43%), South Korea (36%), Indonesia (33%), and despite its growth, it has not yet caught up with investment needs, as achieved by NICs, Malaysia, and Indonesia. One common experience among NICs is that their savings gaps peaked at 8-13% of GDP and did not persist there for longer than 2-3 years before subsiding. Different savings rates in different countries are due not only to different levels of income but also to other important factors such as regulations, institutions, education, population growth, political regime, and culture.

When attention is turned to spending in order to investigate the possibility of raising savings in Thailand, it is discovered that proper measures or incentives on savings mobilization will not be in vain because there are some inefficiencies in expenditures which are rectifiable. The two particular expenditures of Thai households that grew too much are clothes plus shoes and transport plus communications. The number of wasteful expenditures in state agencies is far larger (e.g. those on personnel, organizations, construction works, public utilities and fuel, pension, health care, and subsidies). Since the savings gap after 1988 was wholly due to the private sector, it is worth examining formats of savings and saving behavior of Thai private agents in detail.

In the Thai private sector, three primary factors heavily influence decisions on savings, i.e. steadiness of income, residence and environment, and prevalent attitudes. Independent or own-account entrepreneurs are readier to save than their counterparts (employees) because their streams of income are rather unsteady due to uncontrollable fluctuations, and they lack access to credits from financial institutions. Furthermore, own-account households often choose to fund their maintenance costs plus investment by themselves, since ordinary credits from informal markets are exorbitantly priced. In reference to location, upcountry residents tend to save at higher rates than their urban counterparts. That is largely attributed to the limited availability of goods and services to be purchased. So any discretionary measures to tap savings should be aimed at own-account entrepreneurs and upcountry households.

Most Thai savers, especially the small ones, prefer to keep their savings liquid or at places from which credits can be drawn. And very few of them are far-sighted. These viewpoints are supported by the popularity of chit funds, maturity profiles of deposits, patterns of securities investment, and sluggish performances of cooperatives as well as credit fonciers.

Statistical tests verify most claims asserted above. They also indicate that though interest rates affect savings as expected, the extent of their impact is small. The tests show that accessibility to formal financial institutions promotes the mobilization of household savings.

Given all the above findings, the promising measures to motivate and mobilize domestic savings fall into the following three categories.

- (1) Improve the efficiency of spending.
- (2) Attract steady streams of savings by offering credit lines.
- (3) Saving mobilization through saving funds.

The government should exert efforts to motivate the renovation and recycling of clothes and shoes towards low-income groups in particular. Meanwhile, encouragements in some formats ought to be given to pooling and mass transit so that expenses upon transport and communications can be curtailed. As for state agencies, more attention should be given to rule amendments on personnel and organizations, pooling and coordinating of resource use across various units, partial or total privatization, and evaluation plus screening of all investment projects before implementation. As for private businesses, they should be directed to employ and gain from economy of scale via resource pooling, specialization, making uses of residuals, and advanced planning together with proper scheduling.

Since the Government Savings Bank (GSB) is now flooded with excess liquidity, its widespread branches coupled with those of the Bank for Agriculture and Agricultural Cooperatives as well as Post Offices can capture more savings in rural areas and share circuits by offering credit coupons to the groups which have deposited funds steadily enough. This scheme will create neither too much credit risks nor liquidity risks upon the GSB owing to automatic monitoring by share members and abundant channels of fund-flows. In effect, provided that the rates of return offered on deposits are sufficiently high

and formality is absent, the coupon deposit program fits with predilections of ready savers. It therefore will help mobilize savings in rural areas and informal markets to productive uses.

As employees are typically less tempted to save than entrepreneurs, the encouragement and improvement of various saving scheme for this group should be pursued. The government pension plan is in the process of being transformed into the Central Provident Fund. This will serve to directly link the public pension scheme to the generation of current saving, and benefit national saving mobilization. The Social Security System will in due course be expanded to cover retirement benefits. If properly designed, this has a large potential for tapping savings from private employees. Finally, additional tax incentives can be provided to Private Provident Funds to increase net returns to beneficiaries. This will supplement the savings generated through the Social Security Fund.

Table 1.1

International Comparison of Savings Rates (% of GDP)

	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
Singapore	n.a.	4.14	13.95	15.03	19.76	14.06	13.67	14.77	2.38	3.87	20.38	22.40	17.59	24.78
Korea	11.76	9.89	10.65	15.18	17.75	17.72	17.91	18.68	15.91	12.77	16.46	20.98	14.26	16.00
Indonesia	n.a.	n.a.	n.a.	n.a.	n.a.	3.53	5.64	7.63	10.26	11.82	15.74	14.96	19.10	16.70
Malaysia	13.96	13.12	14.92	17.06	15.89	15.02	15.52	20.31	17.91	18.31	17.66	23.90	19.64	19.78
Thailand	14.98	15.87	18.80	18.61	20.69	22.03	21.02	20.72	20.22	20.96	22.07	22.04	22.65	18.68

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Singapore	26.53	29.54	29.92	28.84	27.33	32.99	38.98	44.03	45.80	42.18	38.81	34.79	38.27	44.46	43.47
Korea	22.97	28.25	30.35	27.35	23.64	21.30	24.81	27.29	27.38	27.29	32.18	36.19	37.29	34.02	35.58
Indonesia	18.29	20.01	17.79	22.84	25.03	29.19	22.22	21.25	24.07	25.84	23.38	28.60	29.88	34.02	33.53
Malaysia	27.34	26.40	25.42	30.77	29.97	26.11	22.88	24.45	27.00	27.86	25.91	31.30	29.35	29.06	28.77
Thailand	20.32	20.37	20.45	17.95	18.73	17.37	20.63	16.75	19.39	20.18	22.38	22.90	24.25	27.38	26.46

International Comparison of Savings Gap (% of GDP)

	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
Singapore	n.a.	-11.85	-6.20	-6.11	0.09	-5.64	-9.44	-11.65	-30.16	-32.37	-17.07	-12.50	-19.84	-10.36
Korea	-2.03	-3.72	-0.78	0.27	-2.76	-4.13	-7.48	-7.43	-7.10	-8.71	-3.47	-2.25	-10.83	-8.94
Indonesia	n.a.	n.a.	n.a.	n.a.	n.a.	-4.48	-3.18	-4.03	-3.37	-3.97	-3.04	-2.93	2.32	-3.64
Malaysia	-2.17	-3.18	-0.91	1.35	0.39	-0.13	0.96	6.29	0.20	-2.54	-4.92	1.37	-5.73	-5.31
Thailand	-0.85	-1.90	-0.61	-0.37	0.57	-0.96	-2.53	-3.23	-3.53	-2.37	-0.62	-0.43	-0.64	-4.20

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Singapore	-9.56	-4.49	-5.78	-7.80	-13.34	-10.59	-8.49	-3.51	-1.94	-0.02	1.80	-0.78	3.58	8.33	6.18
Korea	-1.07	0.03	-2.16	-6.41	-8.50	-6.66	-3.56	-1.95	-1.52	-0.95	4.36	7.48	8.09	2.37	-0.89
Indonesia	-2.43	-0.11	-2.75	1.91	4.15	-0.62	-5.64	-7.42	-2.12	-2.20	-4.89	-2.76	-1.66	-1.17	-2.96
Malaysia	5.25	3.32	0.66	4.38	-1.17	-9.92	-13.47	-11.60	-4.92	-1.96	-0.44	8.34	5.22	-0.57	-3.94
Thailand	-2.59	-5.55	-4.80	-7.62	-6.44	-7.37	-2.81	-7.26	-5.12	-3.51	0.59	-0.75	-2.78	-3.61	-9.08

Table 1.2: SOUTH KOREA

(Amounts in billion won)
(Ratios in per cent)

YEAR	GDP	Investment	I/GDP	Savings	S/GDP
1962	352	49	13.79	41	11.76
1963	500	68	13.61	49	9.89
1964	711	81	11.43	76	10.65
1965	798	119	14.91	121	15.18
1966	1,024	210	20.51	182	17.75
1967	1,259	275	21.84	223	17.72
1968	1,630	414	25.40	292	17.91
1969	2,130	556	26.10	398	18.68
1970	2,724	627	23.02	434	15.91
1971	3,379	726	21.49	432	12.77
1972	4,170	831	19.93	686	16.46
1973	5,416	1,258	23.23	1,136	20.98
1974	7,569	1,899	25.09	1,080	14.26
1975	10,224	2,550	24.94	1,636	16.00
1976	13,996	3,365	24.04	3,215	22.97
1977	18,074	5,100	28.22	5,106	28.25
1978	24,327	7,909	32.51	7,384	30.35
1979	31,323	10,576	33.76	8,567	27.35
1980	38,041	12,226	32.14	8,994	23.64
1981	47,482	13,276	27.96	10,112	21.30
1982	54,443	15,446	28.37	13,509	24.81
1983	63,833	18,669	29.25	17,423	27.29
1984	72,644	20,998	28.91	19,892	27.38
1985	80,847	22,837	28.25	22,065	27.29
1986	93,426	25,993	27.82	30,063	32.18
1987	108,428	31,131	28.71	39,237	36.19
1988	127,963	37,355	29.19	47,713	37.29
1989	143,001	45,259	31.65	48,654	34.02
1990	172,724	62,992	36.47	61,455	35.58

Source: International Financial Statistics, 1992.

Table 1.3: SINGAPORE

(Amounts in million Singapore \$)
(Ratios in per cent)

YEAR	GDP	Investment	I/GDP	Savings	S/GDP
1962	2,514	360	14.32	N.A.	N.A.
1963	2,790	446	15.99	115	4.14
1964	2,715	547	20.15	379	13.95
1965	2,956	625	21.14	444	15.03
1966	3,331	655	19.66	658	19.76
1967	3,746	738	19.70	527	14.06
1968	4,315	997	23.11	590	13.67
1969	5,020	1,326	26.41	741	14.77
1970	5,805	1,889	32.54	138	2.38
1971	6,823	2,473	36.25	264	3.87
1972	8,156	3,054	37.44	1,662	20.38
1973	10,205	3,561	34.89	2,286	22.40
1974	12,543	4,695	37.43	2,207	17.59
1975	13,373	4,698	35.13	3,313	24.78
1976	14,651	5,288	36.09	3,887	26.53
1977	16,039	5,458	34.03	4,738	29.54
1978	17,830	6,365	35.70	5,335	29.92
1979	20,523	7,520	36.64	5,919	28.84
1980	25,091	10,203	40.66	6,856	27.33
1981	29,339	12,785	43.58	9,679	32.99
1982	32,670	15,509	47.47	12,736	38.98
1983	36,733	17,464	47.54	16,175	44.03
1984	40,048	19,122	47.75	18,343	45.80
1985	38,924	16,425	42.20	16,416	42.18
1986	38,664	14,310	37.01	15,005	38.81
1987	42,636	15,165	35.57	14,834	34.79
1988	49,998	17,344	34.69	19,133	38.27
1989	56,844	20,538	36.13	25,273	44.46
1990	63,673	23,748	37.30	27,681	43.47
1991	69,076	27,529	39.85	34,799	50.38

Source: International Financial Statistics, 1992.

Table 1.4: MALAYSIA

(Amounts in million ringgit)
(Ratios in per cent)

YEAR	GDP	Investment	I/GDP	Savings	S/GDP
1962	7,056	1,138	16.13	985	13.96
1963	7,515	1,225	16.30	986	13.12
1964	8,056	1,275	15.83	1,202	14.92
1965	8,837	1,388	15.71	1,507	17.06
1966	9,394	1,456	15.50	1,493	15.89
1967	9,774	1,480	15.14	1,468	15.02
1968	10,160	1,479	14.56	1,577	15.52
1969	11,629	1,630	14.02	2,361	20.31
1970	12,155	2,152	17.70	2,176	17.91
1971	12,955	2,701	20.85	2,372	18.31
1972	14,220	3,211	22.58	2,512	17.66
1973	18,723	4,219	22.53	4,475	23.90
1974	22,858	5,798	25.37	4,489	19.64
1975	22,332	5,602	25.09	4,417	19.78
1976	28,085	6,206	22.10	7,679	27.34
1977	32,340	7,465	23.08	8,538	26.40
1978	37,886	9,381	24.76	9,632	25.42
1979	46,424	12,250	26.39	14,285	30.77
1980	53,308	16,597	31.13	15,976	29.97
1981	57,613	20,759	36.03	15,041	26.11
1982	62,579	22,745	36.35	14,319	22.88
1983	69,941	25,213	36.05	17,100	24.45
1984	79,550	25,391	31.92	21,481	27.00
1985	77,547	23,124	29.82	21,604	27.86
1986	71,594	18,865	26.35	18,548	25.91
1987	79,625	18,280	22.96	24,923	31.30
1988	90,861	21,922	24.13	26,664	29.35
1989	101,463	30,063	29.63	29,488	29.06
1990	114,616	37,490	32.71	32,976	28.77

Source: International Financial Statistics, 1992.

Table 1.5: INDONESIA

(Amounts in billion rupiah)
(Ratios in per cent)

YEAR	GDP	Investment	I/GDP	Savings	S/GDP
1967	848	68	8.01	30	3.53
1968	2,097	185	8.82	118	5.64
1969	2,718	317	11.66	207	7.63
1970	3,340	455	13.62	343	10.26
1971	3,672	580	15.80	434	11.82
1972	4,564	857	18.78	718	15.74
1973	6,753	1,208	17.89	1,010	14.96
1974	10,708	1,797	16.78	2,045	19.10
1975	12,643	2,572	20.34	2,112	16.70
1976	15,467	3,205	20.72	2,829	18.29
1977	19,011	3,826	20.13	3,805	20.01
1978	22,746	4,671	20.54	4,046	17.79
1979	32,025	6,704	20.93	7,315	22.84
1980	45,446	9,485	20.87	11,373	25.03
1981	58,127	17,324	29.80	16,966	29.19
1982	62,476	17,406	27.86	13,885	22.22
1983	77,623	22,261	28.68	16,498	21.25
1984	89,885	23,543	26.19	21,639	24.07
1985	96,997	27,204	28.05	25,068	25.84
1986	102,683	29,025	28.27	24,009	23.38
1987	124,817	39,146	31.36	35,697	28.60
1988	142,105	44,810	31.53	42,455	29.88
1989	167,495	58,938	35.19	56,977	34.02
1990	197,721	72,154	36.49	66,296	33.53

Source: International Financial Statistics, 1992.

Table 1.6: PHILIPPINES

(Amounts in billion pesos)
(Ratios in per cent)

YEAR	GDP	Investment	I/GDP	Savings	S/GDP
1962	17	3	14.62	2	14.27
1963	20	3	15.58	3	17.36
1964	22	4	17.67	4	17.36
1965	24	4	17.45	5	19.48
1966	26	4	16.60	5	18.82
1967	29	5	18.28	5	17.71
1968	32	6	17.13	4	13.90
1969	35	6	16.15	5	13.35
1970	42	7	15.80	6	15.13
1971	50	8	16.37	8	16.34
1972	56	9	15.69	9	15.76
1973	72	11	15.77	15	20.19
1974	100	18	18.49	17	17.07
1975	115	21	18.40	14	12.56
1976	135	34	24.91	25	18.83
1977	154	36	23.61	31	19.99
1978	178	42	23.80	34	19.27
1979	218	56	25.89	45	20.81
1980	244	66	27.25	52	21.34
1981	282	78	27.73	62	21.85
1982	317	87	27.52	60	18.87
1983	369	110	29.86	79	21.52
1984	525	129	24.52	107	20.40
1985	572	100	17.46	99	17.34
1986	609	102	16.81	122	20.00
1987	686	116	16.97	107	15.64
1988	803	143	17.83	135	16.81
1989	925	193	20.88	162	17.46
1990	1,075	234	21.79	169	15.70
1991	1,238	246	19.91	246	19.91

Source: International Financial Statistics, 1992.

Table 1.7: THAILAND

(Amounts in billion baht)
(Ratios in per cent)

YEAR	GDP	Investment	I/GDP	Savings	S/GDP
1962	64	10	15.83	10	14.98
1963	68	12	17.77	11	15.87
1964	75	15	19.41	14	18.80
1965	84	16	18.98	16	18.61
1966	101	20	20.12	21	20.69
1967	108	25	22.99	24	22.03
1968	117	28	23.54	25	21.02
1969	129	31	23.95	27	20.72
1970	147	35	23.74	30	20.22
1971	153	36	23.34	32	20.96
1972	170	39	22.69	38	22.07
1973	222	50	22.47	49	22.04
1974	279	65	23.28	63	22.65
1975	303	69	22.88	57	18.68
1976	347	79	22.91	70	20.32
1977	404	105	25.92	82	20.37
1978	488	123	25.26	100	20.45
1979	559	143	25.57	100	17.95
1980	659	166	25.16	123	18.73
1981	760	188	24.74	132	17.37
1982	820	192	23.44	169	20.63
1983	910	219	24.01	152	16.75
1984	973	239	24.51	189	19.39
1985	1,014	240	23.69	205	20.18
1986	1,095	239	21.79	245	22.38
1987	1,253	296	23.65	287	22.90
1988	1,507	407	27.03	365	24.25
1989	1,776	550	30.99	486	27.38
1990	2,051	729	35.55	543	26.46

Source: International Financial Statistics, 1992.

Table 1.7 (continued): Composition of Savings-Investment Gap in Thailand

(percentage of current GDP)

YEAR	Savings-Investment Gap	Private Portion	Public Portion
1970	-3.53	0.35	-4.53
1971	-2.29	2.12	-4.76
1972	-0.58	2.06	-4.43
1973	-0.49	3.85	-2.22
1974	-0.59	-0.40	1.44
1975	-4.06	-0.30	-1.99
1976	-2.50	2.57	-5.06
1977	-5.47	0.47	-4.46
1978	-4.70	3.66	-5.08
1979	-7.47	1.89	-5.29
1980	-6.39	2.96	-7.20
1981	-7.22	3.35	-7.52
1982	-2.68	4.44	-8.18
1983	-7.25	3.39	-6.20
1984	-5.00	2.79	-6.67
1985	-3.99	3.69	-7.95
1986	0.63	4.94	-5.82
1987	-0.55	2.40	-2.35
1988	-2.75	-0.64	2.22
1989	-3.63	-4.03	3.23
1990	-7.33	-10.07	4.88

Table 2.1: Percentage Shares of Private Consumption in GDP of Thailand*

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
1. Food	23.4	22.6	21.4	20.9	19.0	17.7	17.5	17.8	17.6	17.0	16.2
2. Beverages	4.3	4.0	4.0	4.1	4.2	3.8	4.1	4.2	4.7	4.9	5.4
3. Tobacco	1.7	1.7	1.6	1.7	1.6	1.5	1.5	1.4	1.4	1.4	1.3
4. Clothing and other personal effects	7.2	7.3	7.2	7.4	7.5	7.8	8.3	8.7	9.0	9.2	9.4
5. Rent and water charges	3.8	3.9	4.1	4.3	4.4	4.6	4.9	4.9	4.8	4.7	4.5
6. Fuel and light	1.7	1.7	1.6	1.6	1.5	1.5	1.4	1.4	1.3	1.2	1.1
7. Furniture & household	4.0	3.8	3.7	4.0	4.1	4.1	4.1	4.6	5.0	5.4	5.5
8. Personal care and health expenses	3.8	3.7	3.6	3.8	4.5	4.8	5.0	5.3	5.6	5.7	5.7
9. Transportation and communications	5.7	6.2	6.4	6.3	6.1	6.0	5.9	6.1	7.0	7.3	7.7
10. Recreation and entertainment	7.1	7.0	7.2	7.0	7.1	7.2	7.6	8.4	8.8	9.5	9.7
11. Miscellaneous services	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.2	1.3	1.4
Plus: Expenditures of residents abroad	0.7	0.7	0.7	0.8	0.7	0.7	0.6	0.8	1.0	1.2	1.1
Less: Expenditures of non-residents in the country	2.5	2.6	2.6	2.5	2.5	2.8	3.1	3.8	5.4	5.8	6.0
Private consumption expenditures	61.8	60.8	59.8	60.4	59.2	57.8	58.8	60.8	62.0	62.8	63.0

Source: NESDB

*All shares are calculated from amounts at market prices.

Table 2.2: Percentage Shares of Private Consumption Expenditures in 1986 GDP of Some Countries*

	DEVELOPED COUNTRIES			NICs			ASEAN	
	USA	JAPAN	W. GERMANY	HK	S. KOREA	SING.	PHIL.	THAI
1. Food, beverages & tobacco	9.0	12.5	12.4	11.9	23.7	13.4	42.5	29.1
2. Clothing & footwear	4.3	3.6	4.9	13.9	3.6	4.6	4.6	8.0
3. Gross rent, fuel & power	13.1	10.7	11.5	9.6	6.2	5.9	3.3	4.6
4. Furniture & household	3.8	3.1	5.0	8.1	2.7	5.4	10.7	4.3
5. Medical care & health expenses	9.3	6.0	1.8	3.7	2.5	2.1	n.a.	3.6
6. Transport & communications	10.1	5.4	8.5	4.8	5.5	6.7	2.4	8.8
7. Recreation, entertainment & education	6.1	5.5	5.4	5.9	5.6	7.2	n.a.	2.8
8. Miscellaneous goods & services	10.3	10.1	4.6	4.9	5.5	9.7	n.a.	6.2
Consumption expenditures	66.1	56.9	54.2	62.6	55.1	55.0	75.8	67.3
GDP	100	100	100	100	100	100	100	100

Source: National Account Statistics: Main Aggregates and Detailed Tables, 1986

*All shares are calculated from amounts at market prices.

Table 2.3: Average Per Capita Income Per Annum from SES

<u>Region</u>	<u>1976</u>	<u>1981</u>	<u>1986</u>	<u>1988</u>
Bangkok	8,152	17,063	21,944	27,007
Central	5,116	10,228	11,446	12,985
Southern	4,004	8,880	10,449	11,587
Northern	3,634	8,447	9,557	11,027
Northeastern	2,983	5,911	6,257	8,179

<u>1981</u>	<u>Municipal</u>	<u>Sanitary</u>	<u>Villages</u>
Bangkok	20,060	17,160	11,441
Central	15,758	10,771	9,519
Southern	18,307	10,077	7,421
Northern	19,086	9,528	7,346
Northeastern	15,923	8,334	5,386

<u>1986</u>	<u>Municipal</u>	<u>Sanitary</u>	<u>Villages</u>
Bangkok	24,327	21,015	17,172
Central	20,369	13,983	9,837
Southern	22,070	12,657	8,403
Northern	22,594	10,520	8,363
Northeastern	20,385	10,384	5,196

<u>1988</u>	<u>Municipal</u>	<u>Sanitary</u>	<u>Villages</u>
Bangkok	27,007	n.a.	n.a.
Central	20,483	14,981	11,400
Southern	23,170	14,637	9,176
Northern	24,709	11,887	9,915
Northeastern	18,120	13,499	7,130

Source: Reports of the Socio-Economic Surveys in 1981, 1986, and 1988

Table 2.4: Average Percentage Shares of Expenditure Items in Monthly Expenditures of Households for Goods and Services

(per cent)

		<u>App. & Foot.*</u>	<u>Trans. & Comm.**</u>	<u>Proport. No. of HH***</u>
<u>1981</u>	<u>Region</u>			
	- Bangkok	5.9 (340)	7.9 (452)	13.4
	- Central	6.4 (244)	6.3 (239)	19.7
	- Southern	8.7 (292)	8.8 (294)	12.6
	- Northern	7.9 (221)	7.9 (221)	22.1
	- Northeastern	8.3 (211)	6.5 (165)	32.2
	<u>Community (non-Bangkok)</u>			
	- Municipal	6.1 (309)	9.6 (491)	6.7
	- Sanitary	6.9 (244)	9.0 (318)	8.9
	- Villages	8.2 (225)	6.4 (177)	71.0
<u>1986</u>	<u>Region</u>			
	- Bangkok	4.6 (300)	9.7 (638)	14.3
	- Central	5.2 (216)	8.6 (360)	19.2
	- Southern	7.4 (287)	10.3 (402)	13.1
	- Northern	6.8 (222)	9.1 (294)	21.5
	- Northeastern	8.8 (206)	10.2 (240)	31.9
	<u>Community (non-Bangkok)</u>			
	- Municipal	5.2 (311)	10.1 (611)	6.6
	- Sanitary	5.9 (243)	8.9 (369)	8.8
	- Villages	7.0 (212)	8.7 (261)	70.3
<u>1988</u>	<u>Region</u>			
	- Bangkok	5.5 (394)	12.9 (917)	16.2
	- Central	5.5 (215)	10.8 (420)	18.8
	- Southern	8.5 (334)	11.1 (434)	12.6
	- Northern	7.0 (220)	10.7 (335)	21.7
	- Northeastern	7.7 (219)	8.0 (226)	30.7
	<u>Community (non-Bangkok)</u>			
	- Municipal	6.4 (339)	13.2 (705)	7.9
	- Sanitary	6.6 (249)	10.2 (386)	8.8
	- Villages	7.4 (221)	9.1 (273)	67.1

Source: Reports of the Socio-Economic Surveys in 1981, 1986, and 1988.

*Apparel and footwear

**Transport and communications

***Proportionate numbers of households (in per cent)

Figures in brackets represent absolute amounts of average monthly expenditures per household (in baht).

Table 2.5: Average Percentage Shares of Household Expenditures on
Apparel and Footwear in Total Monthly Income (SES 1988)
as Classified by Socio-Economic Class of Households

	<u>App. & Foot.*</u>	<u>Proport. No. of HH**</u>
All Households	6.7	100
Farm Operators		
- owning land	8.0	34.2
- renting land	6.6	6.7
Non-Farm, own-account		
- Entrep., trade, industry	5.4	13.1
- Profess., tech., admin.	11.7	0
Employees		
- Profess., tech., admin.	8.3	5.8
- Farm workers	6.0	6.6
- General workers	6.4	3.9
- Clerical, sales, services	6.5	10.2
- Production	5.5	9.7
Economically inactive	5.7	9.8

Source: Report of the 1988 Household Socio-Economic Survey.

*Apparel and footwear

**Proportionate numbers of households (in per cent)

Table 2.6: AT 1972 PRICES

YEAR	PRIVATE					PUBLIC					GDP at 1972 Prices Mill. Baht
	Consumption		Investment		C+I	Consumption		Investment		C+I	
	Million Baht	% of GDP	Million Baht	% of GDP	% of GDP	Million Baht	% of GDP	Million Baht	% of GDP	% of GDP	
1970	108,619	69.764	26,944	17.306	87.07	17,234	11.069	11,161	7.1685	18.238	155,694
1971	110,564	67.656	27,334	16.726	84.383	18,007	11.019	10,928	6.6871	17.706	163,420
1972	117,605	69.148	27,216	16.002	85.151	18,572	10.92	11,415	6.7117	17.632	170,076
1973	127,799	68.398	33,072	17.7	86.099	20,045	10.728	9,418	5.0405	15.769	186,845
1974	133,952	68.701	35,855	18.389	87.09	19,898	10.205	6,562	3.3655	13.571	194,979
1975	141,245	69.093	32,683	15.988	85.08	22,695	11.102	9,377	4.5869	15.689	204,428
1976	152,230	68.083	33,947	15.182	83.266	27,144	12.14	13,610	6.0869	18.227	223,594
1977	164,283	66.9	42,876	17.4	84.3	29,936	12.183	16,088	6.5471	18.73	245,727
1978	174,705	64.377	46,041	16.966	81.343	33,823	12.463	19,483	7.1793	19.643	271,378
1979	187,526	65.6	48,404	16.936	82.536	39,066	13.669	19,703	6.8941	20.563	285,797
1980	197,744	66.031	47,150	15.744	81.775	40,171	13.414	23,423	7.8214	21.235	299,472
1981	201,696	63.339	48,901	15.356	78.695	45,636	14.331	24,910	7.8225	22.154	318,439
1982	206,984	62.461	49,576	14.96	77.422	47,206	14.245	22,782	6.8749	21.12	331,380
1983	221,450	62.309	56,258	15.829	78.138	50,781	14.288	25,401	7.147	21.435	355,408
1984	237,229	62.308	62,232	16.345	78.653	54,446	14.3	28,360	7.4487	21.749	380,738
1985	241,983	61.399	55,267	14.023	75.423	58,191	14.765	30,508	7.7409	22.506	394,113
1986	252,377	61.036	55,549	13.434	74.47	58,302	14.1	26,974	6.5235	20.624	413,489
1987	274,624	60.672	71,779	15.858	76.53	58,845	13.001	23,449	5.1806	18.181	452,635
1988	298,842	58.314	94,753	18.49	76.804	60,885	11.881	21,248	4.1462	16.027	512,467
1989	331,443	57.723	118,978	20.721	78.444	60,834	10.595	22,496	3.9178	14.512	574,195
1990e	361,683	57.264	145,548	23.044	80.308	62,616	9.9137	29,947	4.7414	14.655	631,610

Note: Public consumption does not include state enterprises

Source : NESDB

Table 2.7: AT CURRENT MARKET PRICES

YEAR	PRIVATE					PUBLIC					GDP at Current Prices Mill. Baht
	Consumption		Investment		C+I	Consumption		Investment		C+I	
	Million Baht	% of GDP	Million Baht	% of GDP	% of GDP	Million Baht	% of GDP	Million Baht	% of GDP	% of GDP	
1970	103,190	70.014	24,566	16.668	86.682	16,578	11.248	10,429	7.076	18.324	147,385
1971	104,823	68.326	25,482	16.61	84.935	17,676	11.522	10,305	6.717	18.239	153,417
1972	117,605	69.148	27,216	16.002	85.151	18,572	10.92	11,415	6.7117	17.632	170,076
1973	149,037	67.101	38,526	17.345	84.446	21,635	9.7407	11,411	5.1375	14.878	222,110
1974	190,135	68.098	54,628	19.565	87.664	26,085	9.3426	10,403	3.7259	13.068	279,206
1975	211,292	69.66	53,676	17.696	87.356	31,290	10.316	15,704	5.1774	15.493	303,319
1976	237,665	68.587	55,848	16.117	84.704	38,009	10.969	23,519	6.7873	17.756	346,516
1977	271,865	67.372	74,870	18.554	85.926	42,923	10.637	29,752	7.373	18.01	403,529
1978	314,983	64.516	85,891	17.592	82.108	54,583	11.18	37,358	7.6518	18.832	488,226
1979	364,028	65.137	100,434	17.971	83.109	66,798	11.953	42,425	7.5913	19.544	558,861
1980	438,624	66.609	107,104	16.265	82.873	81,431	12.366	58,611	8.9006	21.267	658,509
1981	499,619	65.722	120,059	15.793	81.516	96,981	12.757	67,987	8.9434	21.701	760,195
1982	540,678	65.936	125,793	15.341	81.277	110,162	13.434	66,402	8.0978	21.532	820,002
1983	598,603	65.777	144,808	15.912	81.689	118,572	13.029	73,646	8.0925	21.122	910,054
1984	635,939	65.331	156,546	16.082	81.413	130,095	13.365	82,076	8.4318	21.797	973,412
1985	662,665	65.326	148,363	14.626	79.952	142,917	14.089	91,920	9.0615	23.15	1,014,399
1986	705,665	64.423	155,087	14.158	78.581	144,594	13.2	83,578	7.6301	20.831	1,095,368
1987	794,623	63.41	218,868	17.465	80.876	147,410	11.763	77,482	6.183	17.946	1,253,147
1988	900,660	59.766	329,614	21.873	81.639	156,703	10.398	77,727	5.1578	15.556	1,506,977
1989	1,049,006	59.066	457,891	25.782	84.849	174,924	9.8494	92,524	5.2097	15.059	1,775,978
1990e	1,214,302	59.199	597,328	29.121	88.32	200,706	9.7848	131,725	6.4218	16.207	2,051,208

Note: Public consumption does not include state enterprises

Source : NESDB

Table 2.8: Actual Expenditures, FY 1984-1992*

unit: million baht

Fiscal Year	1984	1985	1986	1987	1988	1989	1990	1991	1992
Category									
1. Wages and Salaries	55,477	59,501	63,312	67,331	70,478	84,321	99,547	112,798	134,480
	-43.0	-42.6	-44.2	-44.8	-44.4	-48.2	-47.2	-44.8	-42.0
2. Temporary Wages	902	932	866	904	943	1,225	1,616	1,892	2,199
	-0.7	-0.7	-0.6	-0.6	-0.6	-0.7	-0.8	-0.8	-0.7
3. Remuneration, and Services other than personal	19,513	21,613	21,131	21,701	22,232	21,718	23,949	29,968	35,202
	-15.1	-15.5	-14.7	-14.4	-14.0	-12.4	-11.4	-11.9	-11.0
4. Public Services	2,868	2,600	2,819	2,927	3,491	3,287	3,727	4,043	4,128
	-2.2	-1.9	-2.0	-1.9	-2.2	-1.9	-1.8	-1.6	-1.3
5. Supplies, Equipment, Properties and Construction	14,624	17,409	17,186	16,655	16,857	16,218	24,564	32,960	45,724
	-11.3	-12.4	-12.0	-11.1	-10.6	-9.3	-11.6	-13.1	-14.3
6. Subsidies	6,474	6,079	6,223	7,300	8,585	9,060	12,146	16,431	27,354
	-5.0	-4.3	-4.3	-4.8	-5.4	-5.2	-5.8	-6.5	-8.5
7. Others	10,261	12,992	12,602	13,493	15,357	16,801	22,773	25,891	36,819
	-8.0	-9.3	-8.8	-9.0	-9.7	-9.6	-10.8	-10.3	-11.5
8. Central Funds	18,873	18,649	19,223	20,090	20,661	22,088	22,408	27,472	34,069
	-14.6	-13.3	-13.4	-13.4	-13.0	-12.6	-10.6	-10.9	-10.6
9. Total	128,991	139,775	143,361	150,401	158,604	174,777	210,926	251,625	320,201
% growth		8.4	2.6	4.9	5.5	10.2	20.7	19.3	27.3

Figures in the brackets represent percentage of the total expenditures.

* not including expenditures in the past FY

Table 2.9: Amount of Actual Expenditures which can be reduced

Fiscal Year	1984	1985	1986	1987	1988	1989	1990	1991	1992
Category									
1. Properties and Construction	12,528	15,132	14,976	14,865	14,727	14,163	21,087	27,820	38,636
	-9.7	-10.8	-10.4	-9.9	-9.3	-8.1	-10.0	-11.1	-12.1
2. Water, Electricity, Telephone, and Postal Expenses	2,868	2,600	2,819	2,927	3,491	3,287	3,727	4,043	4,128
	-2.2	-1.9	-2.0	-1.9	-2.2	-1.9	-1.8	-1.6	-1.3
3. Pensions and Gratuities	4,495	5,024	5,592	6,075	6,493	7,386	8,774	10,159	12,095
	-3.5	-3.6	-3.9	-4.0	-4.1	-4.2	-4.2	-4.0	-3.8
4. Medical Expenses	1,778	2,128	2,589	2,801	3,156	5,390	6,268	7,230	8,485
	-1.4	-1.5	-1.8	-1.9	-2.0	-3.1	-3.0	-2.9	-2.6
Total	128,991	139,775	143,361	150,401	158,604	174,777	210,926	251,625	320,201

Figures in the brackets represent percentage of the total expenditures.

1. Properties and construction are in supplies, equipment, properties and construction.
2. Medical expenses, pension and gratuities are in central funds.
3. Water, electricities, telephone, and postal expenses are in public services.

Table 3.1

Comparison of Total Household Income and Consumption from SES and National Accounts (Million Baht)

	From SES		From National Accounts	
	Total Income	Total Consumption	Total Income	Total Consumption
1975	180,463	181,451	242,455	211,292
1980	347,792	332,671	521,157	438,624
1985	427,428	411,990	784,981	662,665
1988	703,856	661,275	1,102,832	900,660

Ratio of National Accounts to SES

	Total Income	Total Consumption
1975	1.34	1.16
1980	1.50	1.32
1985	1.84	1.61
1988	1.57	1.36

Source: NSO, Socioeconomic Surveys and NESDB, National Income of Thailand (1972 Base Year)

Table 3.2
Right-Side Variables for Regression of Household Saving Rate

Variable	Definition
Economic	
RINCH	Real Per Capita Household Income (1986 Prices) (Baht per Person per Month)
RINCH2	RINCH Squared
WEALTHY	Ratio of Wealth Indicator (Property Income and Housing Expenditures) to Income
RINTER	Real Interest Rate (1-Year Fixed Deposit Rate minus Inflation Rate) (Percent)
BANKBR	Number of Bank Branches per One Million Population (by Region)
Demographic	
HAGE	Age of Head of Household (Years)
HAGE2	HAGE Squared
HUEDU	Years of Education of Head of Household (Years)
HUEDU2	HUEDU Squared
SIZE	Household Size (Persons)
CH04	Number of Children aged 0 to 4 (Persons)
CH05-10	Number of Children aged 5 to 10 (Persons)
Occupational	
OAGTOWH	Land Holding per Capita of Own-account Agricultural Households (Rai per Head)
OAGTOWH2	OAGTOWN Squared
ONAWTHH	Wealth Indicator per Capita of Own-account Non-agricultural Households
ONAWTHH2	ONAWTH Squared
AGNOWN	Dummy for Agricultural Non-ownaccount Households
GOV	Dummy for Government Households
Locational	
NORTH	Dummy for North region
NEAST	Dummy for Northeast region
CENTRAL	Dummy for Central region
SOUTH	Dummy for South region
MNORTH	Dummy for municipal area in the North
MNEAST	Dummy for municipal area in the Northeast
MCENTRAL	Dummy for municipal area in the Central
MSOUTH	Dummy for municipal area in the South

Table 3.3
Descriptive Statistics of Variables

Variable	Mean	Std Dev	Minimum	Maximum	N
RINCH	1610.33	2477.52	39.84	153393.6	45149
RINCH2	8731121.7	117175740	1587.38	2.35E+10	45149
WEALTHY	0.28	0.46	0	30.46	45149
RINTER	2.95	2.32	-1.4	5.65	45149
BANKBR	32.72	20.78	7.03	73.13	45149
HAGE	45.41	14.65	13	99	45149
HAGE2	2277.08	1444.47	169	9801	45149
HUEDU	4.25	3.38	0	18	45149
HUEDU2	29.5	50.01	0	324	45149
SIZE	4.6	2.15	1	20	45149
CH04	0.47	0.7	0	5	45149
CH05-10	0.68	0.88	0	6	45149
OAGTOWH	2.22	3.82	0	40	45149
OAGTOWH2	19.51	79.92	0	1600	45149
ONAWTH	36.34	231.64	0	20339.8	45149
ONAWTH2	54977.8	2461475.94	0	414000000	45149
AGNOWN	0.05	0.22	0	1	45149
GOV	0.08	0.26	0	1	45149
NORTH	0.22	0.42	0	1	45149
NEAST	0.32	0.47	0	1	45149
CENTRAL	0.19	0.4	0	1	45149
SOUTH	0.13	0.34	0	1	45149
MNORTH	0.02	0.13	0	1	45149
MNEAST	0.02	0.12	0	1	45149
MCENTRAL	0.02	0.14	0	1	45149
MSOUTH	0.02	0.13	0	1	45149

Table 3.4
Regression Results of Household Saving Rate

	B	t-Ratio	
RINCH	0.006672939	53.733	*
RINCH2	-0.000000075	-32.455	*
WEALTHY	-91.93448	-108.73	*
RINTER	0.22741	2.735	*
BANKBR	0.19085	7.245	*
HAGE	0.13294	1.693	**
HAGE2	0.000842403	1.079	
HUEDU	0.17715	1.217	
HUEDU2	-0.00638412	-0.653	
SIZE	-0.23257	-1.879	**
CH04	1.28589	4.216	*
CH05-10	-0.03226	-0.127	
OAGTOWH	0.26679	3.028	*
OAGTOWH2	-0.01595	-3.973	*
ONAWTHH	0.003857485	2.864	*
ONAWTHH2	-0.000000193	-1.145	
AGNOWN	-0.86343	-1.019	
GOV	5.16025	6.955	*
NORTH	8.34487	6.529	*
NEAST	7.82046	4.96	*
CENTRAL	-0.05653	-0.069	
SOUTH	-4.16802	-3.432	*
MNORTH	1.62454	1.123	
MNEAST	1.59739	1.066	
MCENTRAL	2.64817	1.907	**
MSOUTH	7.98281	5.361	*
(Constant)	-6.04941	-2.38	*
Multiple R	0.54824		
R Squared	0.30057		
Adjusted R Squared	0.30016		
Standard Error	38.0433		
F	734.54157		

Note: * denotes significance at 5% level, ** denotes significance at 10% level

Table 4.1: Composition of Household Savings at Financial Institutions

(Per cent)

	Commer. banks	Finance comp.	GSB	Life insur.	Savings coop.	Agri. coop.	BAAC	Credit foncier	GHB
1970	73.76	0.89	19.02	2.94	1.96	0.20	0.35	-	-
1971	75.29	1.92	17.44	2.80	1.94	0.21	0.41	-	-
1972	75.27	3.59	16.32	2.43	1.76	0.21	0.43	-	-
1973	72.84	5.47	16.31	2.35	1.65	0.25	0.47	0.50	0.15
1974	72.23	8.38	14.03	2.14	1.53	0.30	0.51	0.70	0.18
1975	74.16	8.22	12.19	2.13	1.53	0.37	0.64	0.57	0.18
1976	74.00	9.03	11.85	2.15	1.29	0.37	0.55	0.43	0.33
1977	73.26	10.33	11.44	2.10	1.27	0.39	0.45	0.44	0.33
1978	70.62	13.65	10.37	2.14	1.34	0.42	0.50	0.62	0.34
1979	70.04	12.55	11.36	2.33	1.54	0.44	0.60	0.73	0.41
1980	70.58	12.63	10.40	2.33	1.59	0.40	0.55	0.85	0.67
1981	70.25	13.75	9.51	2.45	1.67	0.37	0.45	0.99	0.55
1982	70.79	13.92	8.90	2.46	1.69	0.34	0.43	1.01	0.46
1983	73.25	12.04	8.70	2.48	1.75	0.31	0.40	0.69	0.38
1984	75.40	9.28	8.76	2.55	1.88	0.32	0.38	0.44	0.99
1985	74.35	9.54	9.22	2.62	2.02	0.32	0.42	0.35	1.16
1986	72.66	8.50	11.68	2.51	2.29	0.33	0.53	0.32	1.18
1987	73.20	7.49	12.05	2.54	2.59	0.35	0.56	0.25	0.97
1988	73.11	8.27	10.99	2.51	2.77	0.37	0.62	0.20	1.16
1989	73.35	9.72	8.86	2.48	2.69	0.36	0.79	0.15	1.60
1990	75.12	9.76	7.33	2.24	2.52	0.36	0.89	0.12	1.66
1991	74.63	10.61	6.71	2.27	2.54	0.34	0.87	0.14	1.89

Source: Financial Institutions in Thailand,
Bank of Thailand, in 1982, 1986, and 1992

Table 4.2: Composition of Total Savings in Thailand

(Amounts in million baht)

Year	Household	% of GDP	Public Sector	% of GDP	Business Sector	% of GDP	Stat. Discre.	% of GDP	Total Savings	% of GDP	GDP
1970	12,947	8.78	3,753	2.55	12,140	8.24	3,685	2.50	32,525	22.07	147,385
1971	15,409	10.04	3,005	1.96	13,318	8.68	1,886	1.23	33,618	21.91	153,417
1972	15,080	8.87	3,885	2.28	15,635	9.19	1,281	0.75	35,881	21.10	170,076
1973	26,937	12.13	6,485	2.92	20,141	9.07	5,314	2.39	58,877	26.51	222,110
1974	29,598	10.60	14,416	5.16	23,925	8.57	4,772	1.71	72,711	26.04	279,206
1975	26,094	8.60	9,658	3.18	26,657	8.79	6,409	2.11	68,818	22.69	303,319
1976	32,859	9.48	5,973	1.72	31,889	9.20	3,709	1.07	74,430	21.48	346,516
1977	40,925	10.14	11,761	2.91	35,831	8.88	-2,128	-0.53	86,389	21.41	403,529
1978	61,479	12.59	12,576	2.58	42,274	8.66	-1,803	-0.37	114,526	23.46	488,226
1979	60,253	10.78	12,882	2.31	50,745	9.08	-13,575	-2.43	110,305	19.74	558,861
1980	69,756	10.59	11,215	1.70	56,825	8.63	-5,853	-0.89	131,943	20.04	658,509
1981	80,899	10.64	10,849	1.43	64,645	8.50	-11,576	-1.52	144,817	19.05	760,195
1982	91,859	11.20	-662	-0.08	70,380	8.58	6,003	0.73	167,580	20.44	820,002
1983	94,126	10.34	17,179	1.89	81,522	8.96	-22,751	-2.50	170,076	18.69	910,054
1984	94,206	9.68	17,197	1.77	89,474	9.19	-7,018	-0.72	193,859	19.92	973,412
1985	89,896	8.86	11,291	1.11	95,938	9.46	6,310	0.62	203,435	20.05	1,014,399
1986	99,383	9.07	19,810	1.81	109,762	10.02	16,572	1.51	245,527	22.42	1,095,368
1987	117,233	9.36	48,007	3.83	131,729	10.51	-4,044	-0.32	292,925	23.38	1,253,147
1988	160,031	10.62	111,173	7.38	159,992	10.62	-38,093	-2.53	393,103	26.09	1,506,977
1989	181,757	10.23	149,844	8.44	204,509	11.52	-40,902	-2.30	495,208	27.88	1,775,978
1990	150,015	7.31	231,841	11.30	240,811	11.74	-18,972	-0.92	603,695	29.43	2,051,208

Source: National Income of Thailand 1990 Edition, NESDB.

Table 5.1: Effects of Income on Expenditures in Thailand, 1981

Expenditure Category	Income Elasticity
Food	0.722
Alcohol & tobacco	0.979
Apparel	1.290
Housing	1.085
Medical care	1.299
Personal care	0.884
Transport & communications	1.708
Recreation & reading	1.655
Education	1.242
Miscellaneous	1.762

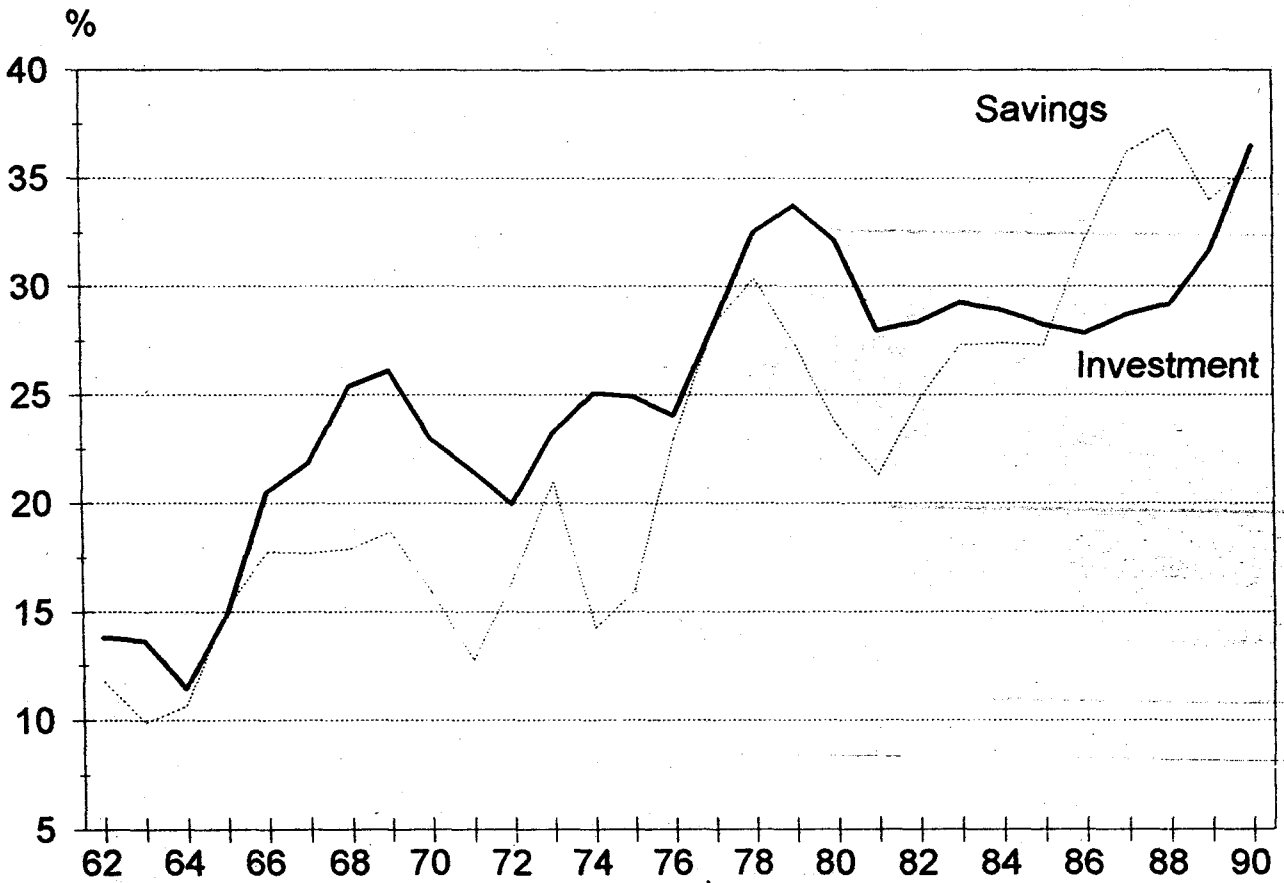
All values are calculated at the mean.

Source: Andrew Mason, Varai Woramontri, Robert M. Kleinbaum, HOMES Research Report No. 2, Consumer Expenditures in Thailand: An Application of HOMES, East-West Population Institute, East-West Center, November 1987.

Table 5.2: Privatization in Thailand

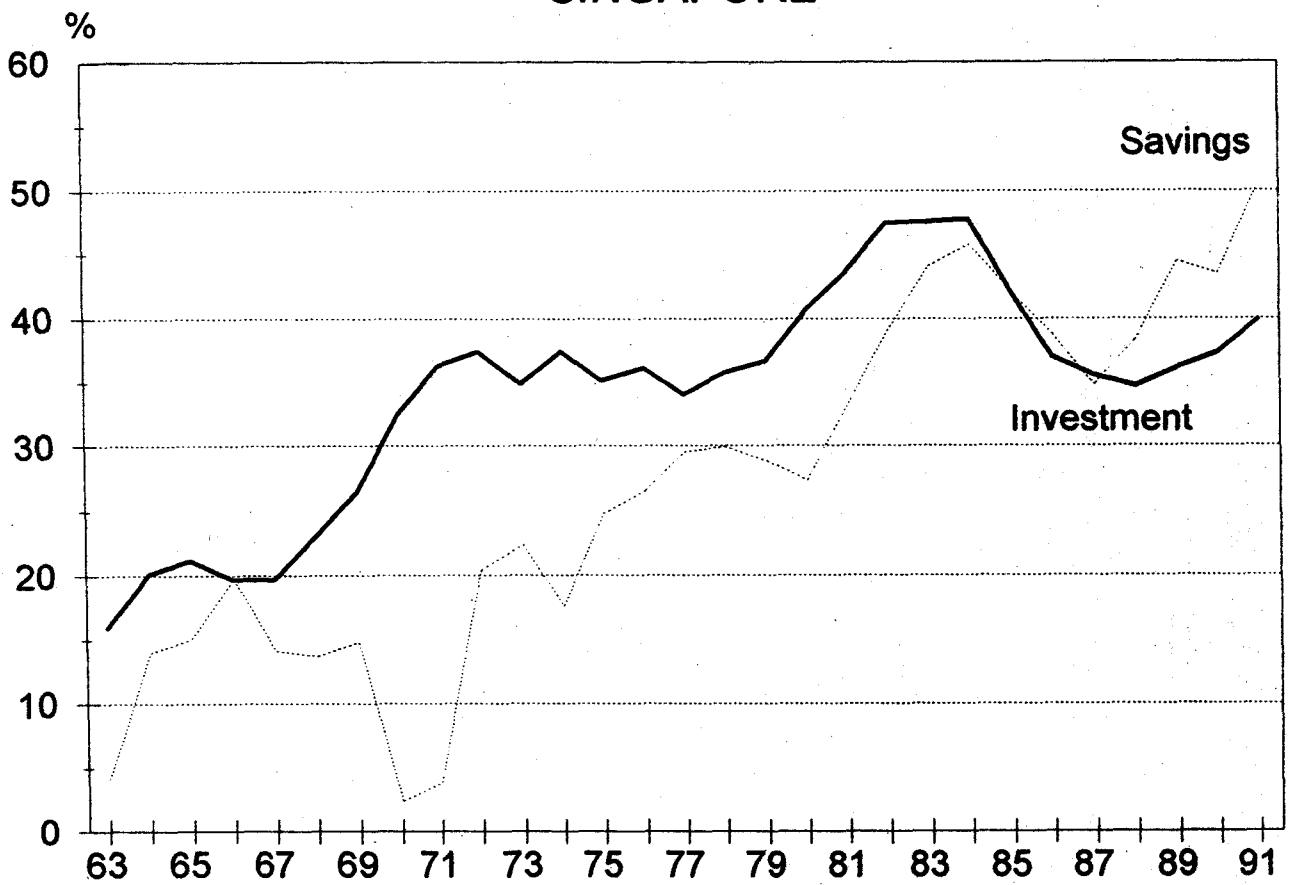
Time Period	Terminated State Enterprises Number and Sample	State Enterprises sold to Private Sector Number and Sample	Amended State Enterprises Number and Sample
Before Economic Development Plan	2 (Thailand Hemp Promotion Co., Thai Metal Factory)	1 (Bang Yee Kun Liquor Distillery Organization)	-
First Plan (1961-66)	9 (Pra Na Korn Umbrella Factory, Porcelain Factory)	1 (Bang Jark Refinery)	-
Second Plan (1967-71)	6 (Thai Sugar Organization)	17 (Changwat Co.)	6 (Yan Hee Electricity Authority, Thon Buri Waterworks Authority)
Third Plan (1972-76)	7 (Chicken Farm Organization Thai Paper Factory)	2 (Changwat Co.)	3 (Office of Housing, Supanburi Sugar Factory Inc.)
Fourth Plan (1977-81)	4 (Thai Television Co.)	4 (Changwat Co.)	3 (Government Savings Bank Printing House, Alum Factory)
Fifth Plan (1982-86)	5 (Song Siang Tam Sai Co., Alum Organization)	2 (Thai Industry Co., Thai Marble Co., Ltd)	2 (Fuel Organization, The Natural Gas Organization)

Figure 1
Savings and Investment (% of GDP)
SOUTH KOREA



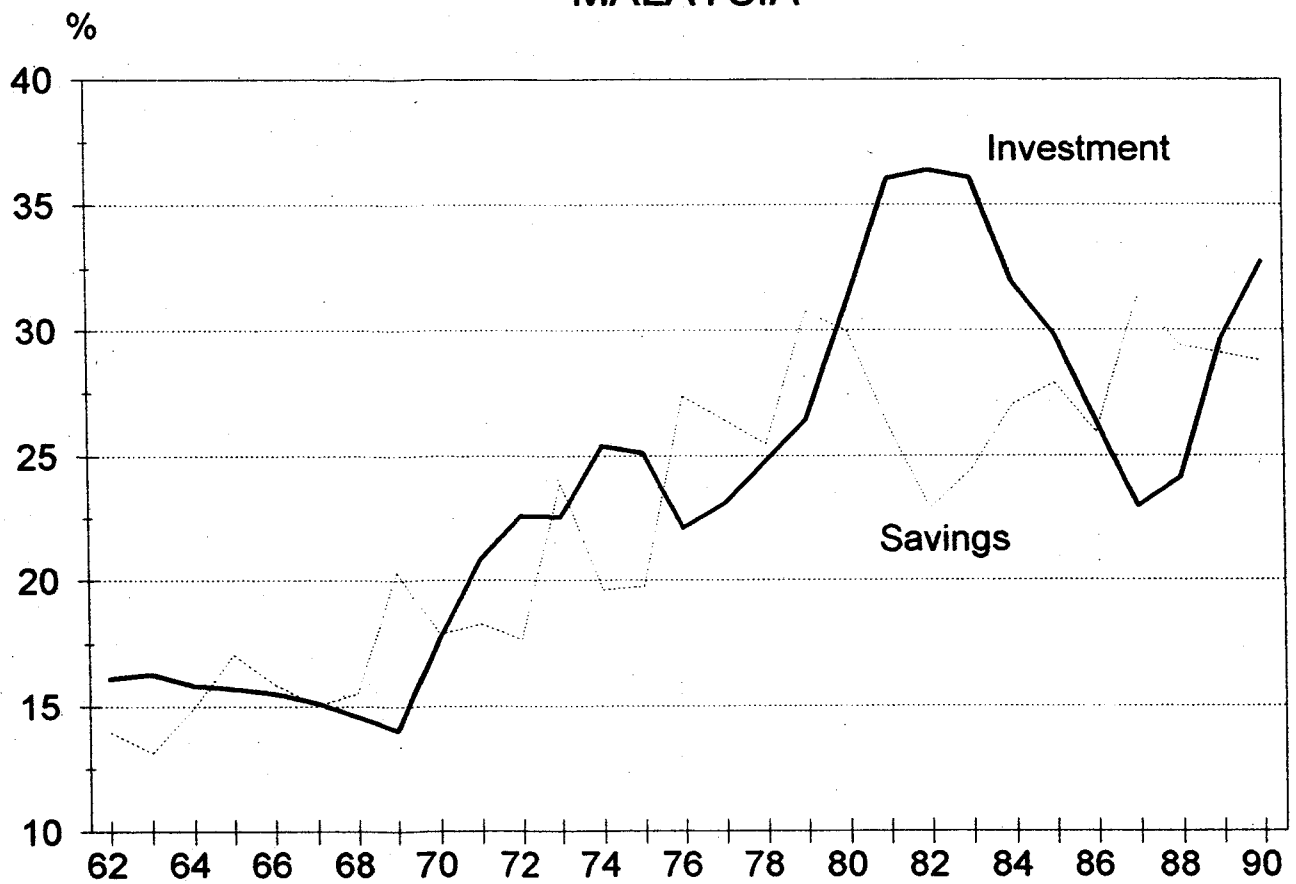
Source: International Financial Statistics, 1992.

Figure 2
Savings and Investment (% of GDP)
SINGAPORE



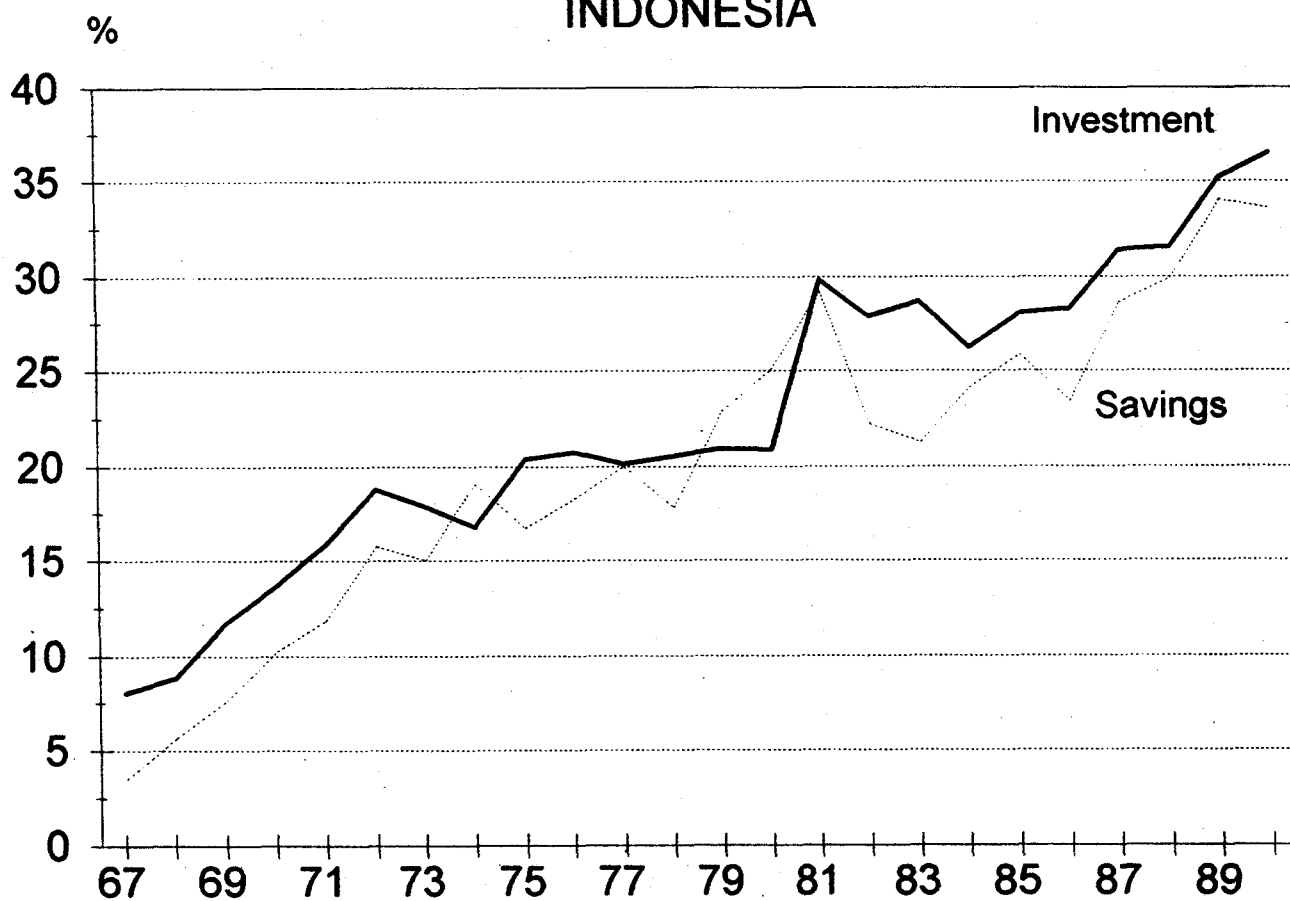
Source: International Financial Statistics, 1992.

Figure 3
Savings and Investment (% of GDP)
MALAYSIA



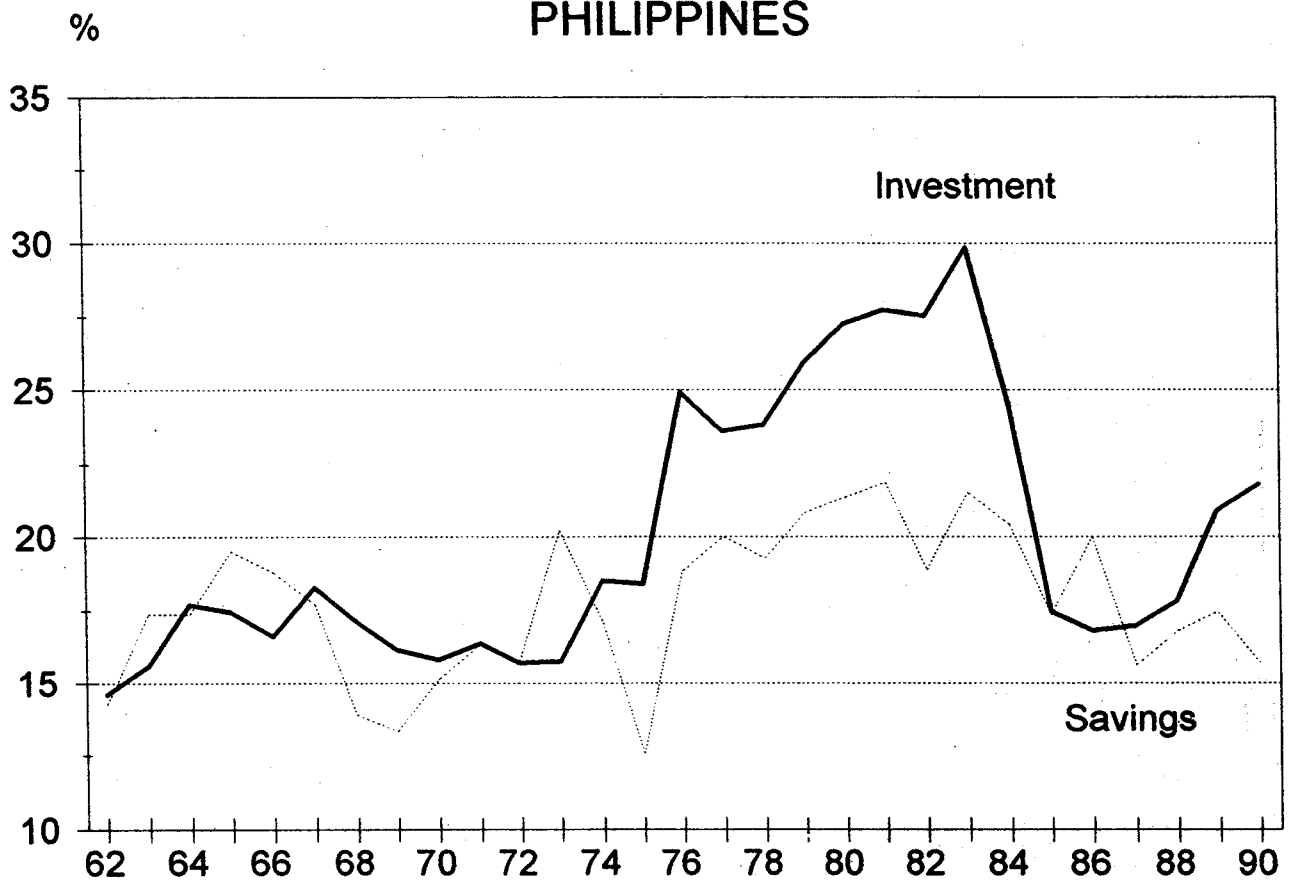
Source: International Financial Statistics, 1992.

Figure 4
Savings and Investment (% of GDP)
INDONESIA



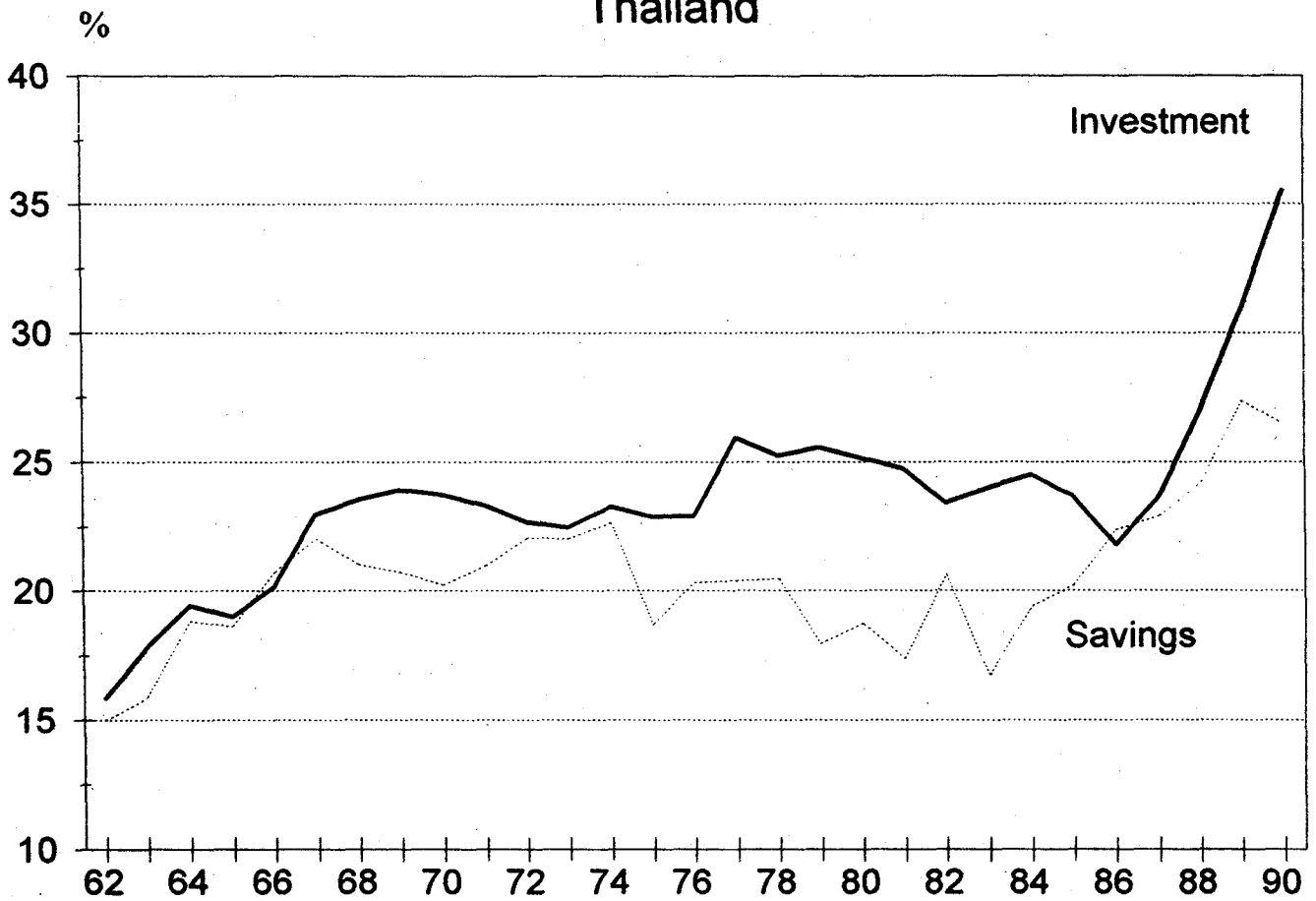
Source: International Financial Statistics, 1992.

Figure 5
Savings and Investment (% of GDP)
PHILIPPINES



Source: International Financial Statistics, 1992.

Figure 6
Savings and Investment (% of GDP)
Thailand



Source: International Financial Statistics, 1992.