concept economics

REPORT

INQUIRY INTO FOREIGN INVESTMENT BY STATE-OWNED ENTITIES

Global Sources of Savings and Investment

Prepared for:
Senate Economics
References Committee

Prepared by:

Dr Brian Fisher

Date: 10 August 2009

Concept Economics:
27 Jardine Street,
PO Box 5430 Kingston
ACT 2604 Australia

Table of contents

GLOBAL SOURCES OF SAVINGS AND INVESTMENT

SUMMARY

- Countries that were historically Australia's sources of funds (such as the United States and the United Kingdom) now have net capital inflows. This does not appear set to change in the near term.
- Gross savings in emerging Asian countries – including China - are growing. These countries generally have rapidly growing output and – partly because of their stage of development – set aside a relatively large share of their income as savings.
- Developed economies tend to import more from emerging Asian and oil-rich countries than they export to them. This leads to large reserves of foreign currency being built up, on which emerging Asian and oil-rich countries seek a return. In recent times, rates of return in developed economies have been generally higher than in developing economies so these funds are drawn back to assets in developed economies.
- Australia already hosts government-backed foreign investment in strategic sectors such as telecommunications and energy distribution.
- The distribution of global savings available for foreign investment is changing rapidly. Pretending that the world is otherwise is a luxury that a small trade-focussed country cannot afford. Australia needs an approach to foreign investment that is forward looking.
- Australia needs to position itself early to capture a large share of low-cost funds so that investment projects that lead to higher standards of living can be initiated. Australia is fortunate in its proximity to the developing economies of Asia. But it cannot afford to distance itself from changes to the world economic order, not least because new investment flows beget new trade flows and because the more integrated the world's economies become, the greater the incentive for each nation to promote regional stability and prosperity.

1. TRENDS IN WORLD SAVINGS

The decision to save depends on a number of factors. Broadly, it is thought that individuals attempt to smooth consumption over their life, borrowing while young to fund consumption, saving in the latter part of their working life and then dissaving in retirement (see Modigliani 1986).

Countries with high rates of per person income growth tend to have higher savings rates than others, although the reason for this is debated. Higher per person income growth means that the income (and therefore the savings) of the working age population is growing more rapidly than the consumption (and therefore the dissaving) of the retired population. This tends to lead to an increase in a nation's overall savings rate. However, high growth rates of per person incomes may lead to an expectation of continued strong growth in which case the young of working age may borrow more than they otherwise would. However, many studies have found that the relationship between per person income growth and savings rates is positive (including IMF (2005), Edwards (1995), Collins (1991), Bosworth (1993) and Carroll and Weil (1993).

The dependency ratio measures the number of 'dependent' members of society per working member. A member of society is considered dependent if they are less than 15 years old or more than 64 years old. The number of working members is taken to be the remaining population. Although an individual's decision about whether to save or consume is not influenced directly by the number of dependents in their population, the larger the share of nonworking members in a society the lower savings are likely to be in aggregate. In a cross-sectional time series analysis of 36 countries across 22 years, Edwards (1995) finds that the higher the dependency ratio the lower the level of a nation's savings.

Countries with high levels of government savings tend to have lower levels of private savings. This suggests that private savings are 'crowded out' by government savings, although Edwards (1995) finds that the relationship is not one-to-one (meaning a dollar saved by government does not translate to a dollar less saved by individuals.

Countries with a social security system that supports the unemployed and retirees tend to have lower levels of savings than countries without such safety nets. Finally, countries with larger current account surpluses tend to have higher savings rates than nations with relatively low surpluses (or deficits).

A consideration of future trends in the above-mentioned savings drivers gives an insight into likely future sources of foreign investment in Australia.

1.1. SHIFTING SHARES OF TOTAL WORLD OUTPUT

The IMF estimates that China's share of world output in 1980 was 2.0 cent, in 1990, 3.6 per cent, in 2000, 7.2 per cent and in 2005, 9.5 per cent (Table 1). The IMF projects that by 2014 – in only five years' time – China's output will comprise 15.5 per cent of the world's total. The United States' share of world output is projected to have declined from a peak of 27.3 per cent in 1950 to 18.3 per cent in 2014. The IMF projects that the United Kingdom will contribute 2.9 per cent of world output in 2014, down from 8.3 per cent immediately before World War I. The share of an aggregate of other important Western European nations is projected to have fallen by 11 percentage points by 2014 relative to 1913. It would seem that Western domination of world output is coming to an end.

Table 1 Country shares of world output, 1870 to 2014.

Country or region	1870	1913	1950	1973	1980	1985
	%	%	%	%	%	%
United States	8.9	19.1	27.3	22.0	22.4	23.0
UK	9.1	8.3	6.5	4.2	3.9	3.8
11 Western European countries[a]	21.7	22.8	17.6	18.6	19.6	18.5
China	17.2	8.9	4.5	4.6	2.0	2.9
India	12.2	7.6	4.2	3.1	2.2	2.5
Other	30.8	33.3	39.9	47.5	49.9	49.4
Country or region	**1990**	**1995**	**2000**	**2005**	**2010[b]**	**2014[b]**
	%	%	%	%	%	%
United States	22.7	23.0	23.5	22.2	19.7	18.3
UK	3.8	3.7	3.6	3.5	3.0	2.9
11 Western European countries[a]	18.2	17.7	16.7	14.9	13.2	11.8
China	3.6	5.7	7.2	9.5	12.8	15.5
India	2.8	3.2	3.6	4.2	5.1	5.7
Other	49.1	46.8	45.3	45.7	46.2	45.7

a Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Sweden and Switzerland.

b Estimates for 2010 and 2014 are made by International Monetary Fund in IMF World Economic Outlook (April 2009).

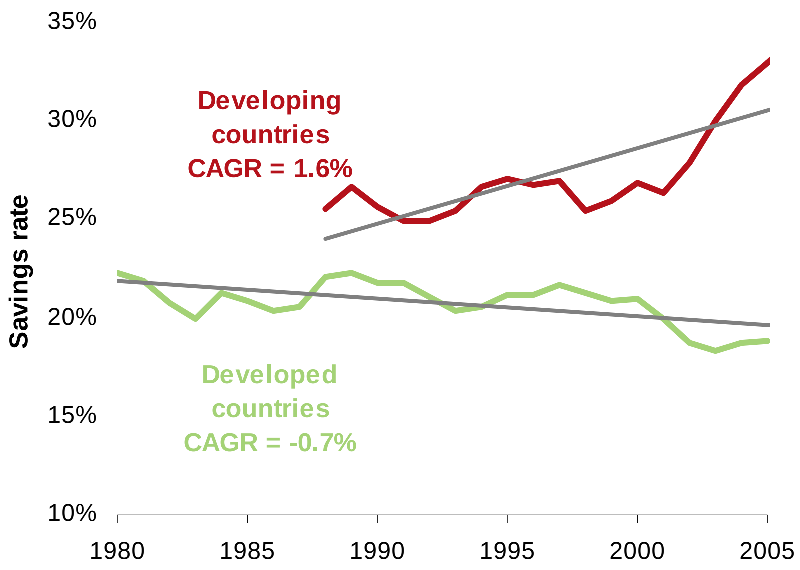
Note: Shares are based on world output aggregated on a purchasing power parity basis rather than a market exchange rate basis. Purchasing power parity rates are more appropriate for making comparisons across nations at different stages of development than market rates.

Source: Data for 1870 to 1973: Maddison (2006) table B-18; data for 1980 to 2014: IMF World Economic Outlook (April 2009).

1.2. SAVINGS RATES

Not only is output growing strongly in developing economies but the share of income that is set aside tends to be higher also. Savings rates in developed countries trended downward for the period 1980 to 2005 at an average annual compound rate of 0.7 per cent. Meanwhile, savings rates in developing countries increased at an annual average compound rate of 1.6 per cent, from 26 per cent to 33 per cent of output (Chart 1).

Chart 1 Savings rates in developed and developing economies



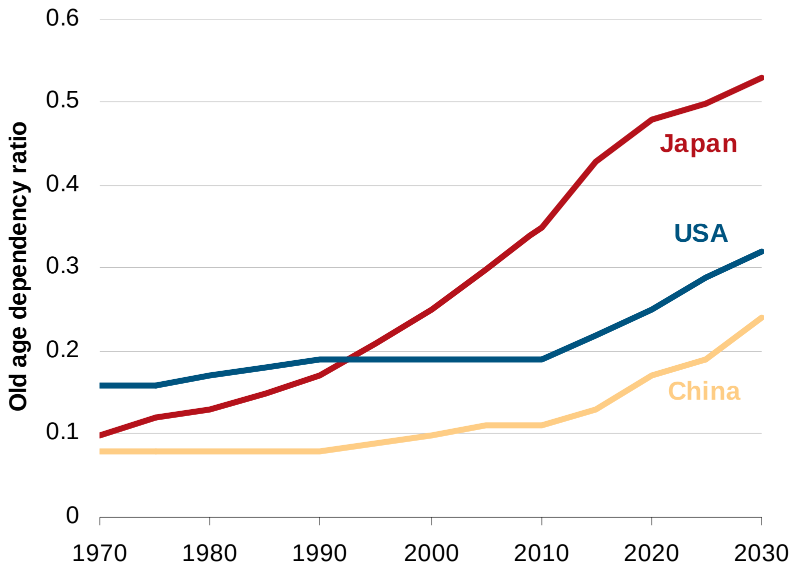
Data source: World Bank

1.3. THE DEMOGRAPHY TIMEBOMB

Demography is contributing to changes in the overall level of savings in developed and developing economies. As lifespans increase, the number of years spent in retirement – and therefore in a period of 'dissaving' - is increasing in developed and developing economies alike.

However, the structure of developed economy populations seems set to magnify this effect to the detriment of those economies. For example, a relatively large share of Japan's population is in the 'dissaving' phase (as measured by the old age dependency ratio, the number of old age dependents for every working age citizen). Over the next twenty years, the ratio is set to continue increasing strongly in Japan (Chart 2). China on the other hand currently has a more favourable distribution in terms of the proportion of the population in the working age phase, and this advantage is likely to be maintained at least until 2030.

Chart 2 Old age dependency ratios, 1970 to 2030 for selected countries



Note: Old age dependency ratio is the number of individuals aged 65+ for each individual in the 'working age' bracket of 15-64 years of age.

Data source: Adapted from United Nations, *World Population Prospects: the 2008 Revision*.

1.4. THE RESULT OF STRONG OUTPUT GROWTH AND HIGH RATES OF SAVING

Strong output growth and high savings rates have led to Asian economies experiencing rapid growth in their absolute level of savings. In China, the rate of savings growth has been at least 8 per cent per year on average since 1971 (Table 2). This is substantially higher than gross savings growth rates in the United States and the world average. From 2001 to 2005, savings in the United States fell at an average annual rate of 2.8 per cent, while the overall world savings growth rate from 1971 to 2005 was about 3 per cent per year.

Table 2 Average annual growth in estimated total savings

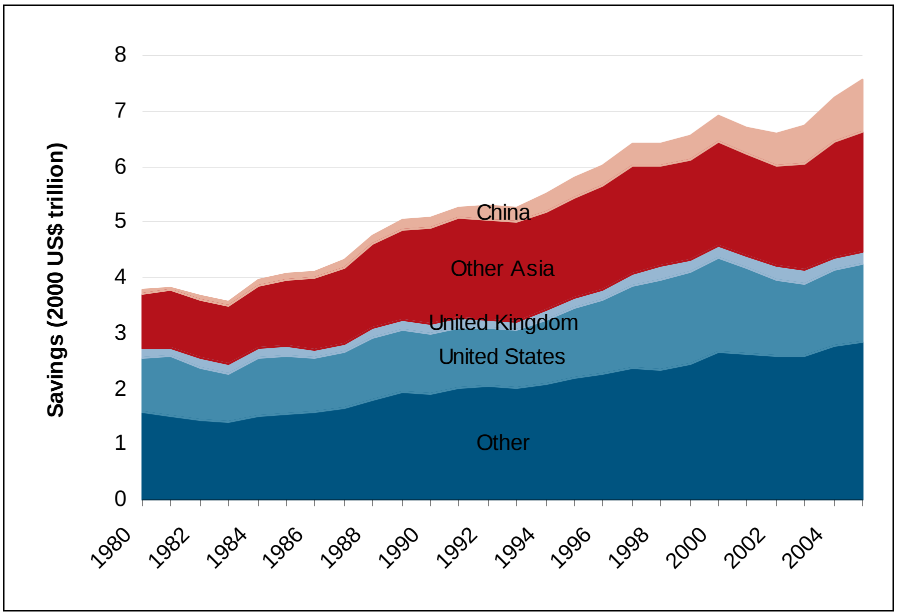
Region	1971-80	1981-90	1991-2000	2001-2005
	% per year	% per year	% per year	% per year
China	8.0	13.0	9.6	18.1
United States	3.7	0.1	5.2	-2.8
United Kingdom	0.0	1.9	2.9	1.6
Other Asia	3.9	5.9	0.4	4.2
World	3.1	3.2	3.0	3.1

Note: Rates are compound annual growth rates. Estimates are based on World Bank estimates of gross savings rates as a percentage of gross national income and World Bank estimates of gross domestic product in constant US dollars.

Source: World Bank 2008, *World Development Indicators Online*, Development Data Group, Washington, DC:

China's share of estimated global savings in 1980 was about US$61 billion (or about 2 per cent of world savings) (Chart 3). By 2005, it had grown to $US961 billion, about 13 per cent of world savings. The share of world savings attributable to nations that were traditional investors in Australia in the early 20th century have fallen over the same period: US savings in 1980 of US$990 billion was equivalent to more than one quarter of world savings, but this share had fallen to 18 per cent by 2005.

Chart 3 Estimated savings by country or region



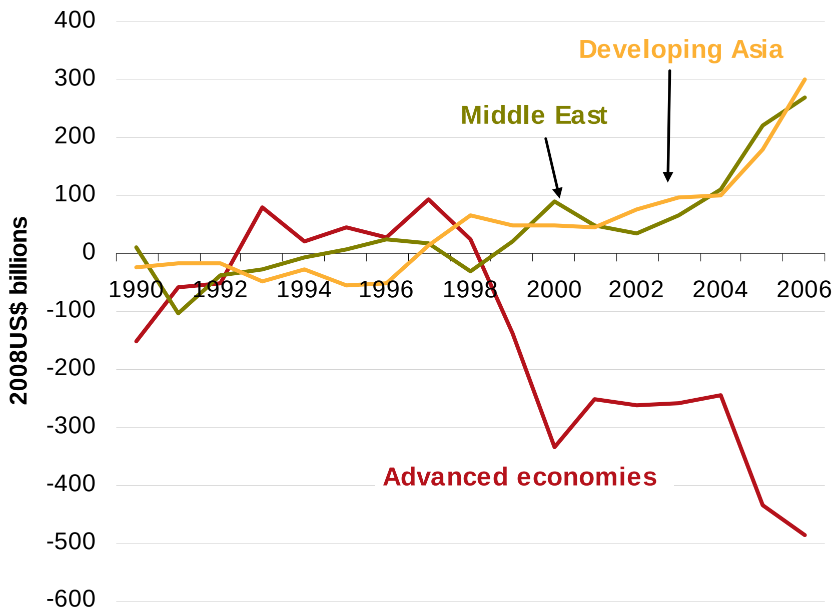
Data source: World Bank.

2. BALANCE OF PAYMENTS

A country can import more goods and services than it exports so long as trading partners are willing to acquire claims over its assets (including claims over future output, for example by holding foreign currency). In other words, a deficit on the *current account* (which (broadly) measures net trade in goods and services and interest payments) must be offset by a surplus on the *financial and capital account* (which measures net investment flows and transfers). Since the late 1990s, advanced economies overall have run large current account deficits, with the offsetting current account surpluses being largely maintained in emerging Asian and Middle Eastern economies. In exchange for the consumption goods manufactured by emerging Asian economies and the oil extracted by Middle Eastern countries, advanced economies have been willing to give up a stake over the assets they own, including claims over future output.

Advanced economies' current account deficits grew to almost US$485 billion in 2006 (in 2008 dollars), while current account surpluses in the Middle East and developing Asia were about US$270 billion and US$300 billion respectively.

Chart 4 Current account balances in three regions, 1990 to 2006



Note: Advanced economies are Euro area, United States, Japan, Korea, Hong Kong SAR, Singapore, Taiwan Province of China, Canada, Czech Republic, Denmark, Iceland, Norway, Sweden, Switzerland Germany Slovak Rep. United Kingdom, Israel, New Zealand and Australia.

Data source: International Monetary Fund World Economic Outlook Database, April 2009.

3. RATES OF RETURN

Flush with funds from large current account surpluses, high savings rates and rapidly expanding output, emerging Asian economies are seeking returns on the stocks of foreign currency they have acquired. IMF (2005) used an international database of balance sheet and other information from annual reports of publicly traded companies to estimate internal rates of return across developed and developing economies. Usually, the relatively low cost of capital in developed economies and the fact that an additional unit of capital in developing economies can make labour quite a bit more productive mean that selected countries in the developing world will have higher rates of return to capital. However, over the period 1994 to 2003 the IMF study found that rates of return in developed economies were substantially higher than those in developing countries. Average internal rates of return across G-7 nations over the period were 2.4 per cent per year, compared to -4.7 per cent in Latin America and -4.6 per cent in emerging Asian countries (Table 3).

Table 3 Estimated rates of return on invested capital, 1994-2003

Country or region	Internal rate of return
	%
Latin America	-4.7
Emerging Asia	-4.6
Other emerging markets	-4.7
G-7	2.4
United Kingdom	2.6
United States	8.6

Source: Adapted from IMF (2005)

4. FOREIGN INVESTMENT IN AUSTRALIA

It is well-known that Australia has benefited greatly from access to foreign savings in the past (see for example CEDA 2008). It is true that these funds were most often sourced from private - rather than government - investors. Nevertheless, foreign governments now have a substantial stake in Australia's telecommunications and energy distribution networks. The Singaporean government is particularly heavily involved through companies such as Optus, SP AusNet and Jemena (Table 4). It also has a major stake in Basslink, the undersea electricity and communications cable linking Tasmania and Victoria. Interest from the United Arab Emirates in Australian ports is also significant.

4.1. FUTURE SOURCES OF FOREIGN INVESTMENT

Countries in Europe and North America will remain wealthy long into the future but their share of world output and world savings is declining over time. Emerging nations in Asia and the Middle East will become the major sources of savings and therefore important sources of foreign capital in the future.

Australia's long term national interest will be furthered by an acknowledgement in its policy stance that the origin of global capital flows has changed. Traditional lender-nations that played a role in Australia's development (such as the United Kingdom and the United States) are not the growth economies for foreign investment they once were.

Australia needs to position itself early to capture a large share of low-cost funds so that investment projects that lead to higher standards of living can be initiated. Australia is fortunate in its proximity to the developing economies of Asia. But it cannot afford to distance itself from changes to the world economic order, not least because new investment flows beget new trade flows and because the more integrated the world's economies become, the greater the incentive for each nation to promote regional stability and prosperity.

Table 4 Investments backed by foreign governments in strategic assets in Australia

Company or asset	Industry	Notes
Optus	Telecommunications	Singtel Optus is a wholly owned subsidiary of Singtel which is majority-owned by Temasek Holdings, a company owned by the Singaporean government. Singtel completed its 100% acquisition of Optus shares in October 2001
SP AusNet	Energy distribution	SP AusNet owns 100% of Victoria's primary electricity transmission network. It also owns an electricity distribution network in eastern Victoria and a gas distribution network in western Victoria. SP AusNet is owned by a subsidiary of Singapore Power, which itself is 100% owned by Temasek Holdings (a company owned by the Singaporean government).
Jemena	Energy distribution	Jemena owns the Queensland Gas Pipeline, Eastern Gas Pipeline (NSW), VicHub, almost all the NSW gas distribution network, 50% of the ActewAGL's gas and electricity distribution networks (which supply the ACT) and other distribution networks. Owned by Singapore Power which itself is 100% owned by Temasek Holdings (a company owned by the Singaporean government).
GIC Real Estate	Real estate	Owns the QVB Building in Sydney, 50% of Westfield Parramatta and the Myer Melbourne site. GIC Real Estate is an arm of a Singaporean government sovereign wealth fund.
Basslink	Energy distribution	The high voltage undersea cable across the Bass Strait is owned by the Cityspring Infrastructure Trust. Cityspring is sponsored by Temasek Holdings, a company owned by the Singaporean government. The link is important to the east coast national electricity market. It also carries a fibre optic communications cable.
DP World	Port infrastructure	Operates terminals at the Ports of Adelaide, Brisbane, Fremantle, Melbourne and Botany (Sydney). DP World is a subsidiary of Dubai World, a government company in the United Arab Emirates.

REFERENCES

Bosworth, B. 1993, *Savings and Investment in the Open Economy*, The Brookings Institution, Washington, D.C.

Carroll, C. and Weil, D. 1993, 'Savings and growth: a reinterpretation', NBER Working Paper No. 4470, September.

CEDA (Committee for Economic Development of Australia) 2008, *The Contribution of Foreign Direct Investment and the Mining Industry to the Welfare of Australians*, Information Paper 92, November

Collins, S. M. 1991. "Saving behaviour in ten developing countries," in National Saving and Economic Performance, National Bureau of Economic Research, pp. 349-376.

Edwards, S. 1995, 'Why are savings rates so different across countries?

IMF (International Monetary Fund) 2005, *World Economic Outlook: Building Institutions*, September.

Maddison, A. 2006 *The World Economy, Vol. 1: A Millennial Perspective and Volume 2: Historical Statistics*, Development Centre Studies, OECD.

McKinnon, R. 1991, *The Order of Economic Liberalisation: Financial Control in the Transition to a Market Economy*, Baltimore, John Hopkins University Press.

Modigliani, F. 1986, 'Life cycle and individual thrift', *The American Economic Review*, 76(3), pp.297-313.