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for Education

# The Impact of Economic Crisis on Higher Education



# The **Impact** of **Economic Crisis** on **Higher Education**



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# List of Abbreviations

ADB	Asian Development Bank	NZD	New Zealand Dollar
BSP	Bangko Sentral ng Pilipinas	OECD	Organization for Economic Co-operation and Development
BK21	Brain Korea 21 Project	OFW	Overseas Filipino Workers
CNY	China Yuan Renminbi	PBRF	Performance-Based Research Fund
CHED	Commission on Higher Education	PMA	Philippine Military Academy
CPI	Consumer Price Index	PPSC	Philippine Public Safety College
DILG	Department of Interior and Local Government	POEA	Philippines Overseas Employment Administration
DND	Department of National Defense	PHP	Philippines Peso
ERP	Economic Resiliency Plan	PKU	Peking University
ECOS	Economic Statistics System	R&D	Research and Development
EFTS	Equivalent Full-Time Student	RUs	Research Universities
FY	Fiscal Year	SSP	Second Stimulus Package
2008Q4	Fourth Quarter of 2008	SMEs	Small and Medium-sized Enterprises
GDP	Gross Domestic Product	SWS	Social Weather Station
GFC	Global Financial Crisis	SAR	Special Administrative Region
GNI	Gross National Income	SUCs	State Universities and Colleges
G20	Group of Twenty Countries	SP2	Stimulus Package 2
HEIs	Higher Education Institutions	TVET	Technical and Vocational Education and Training
HKD	Hong Kong Dollar	THB	Thai Baht
IGPs	Income Generating Projects	THE-QS	Times Higher Education–Quacquarelli Symonds
ICT	Information and Communication Technology	ERI-Net	Educational Research Institutes network in the Asia-Pacific
IT	Information Technology	UCU	United Kingdom University and College Union
KOSIS	Korea Statistical Information Service	UK	United Kingdom
KRW	Korea Won	UNESCO	United Nations Educational, Scientific and Cultural Organization
LMIS	Labour Market Information System	US	United States
LCUs	Local Colleges and Universities	USD	United States Dollar
LGA	Local Government Academy	UiTM	Universiti Teknologi MARA
MOOE	Maintenance and Other Operating Expenses	UGC	University Grants Committee
MYR	Malaysian Ringgit	WTO	World Trade Organization
MoE	Ministry of Education		
MoHE	Ministry of Higher Education		
NBER	National Bureau of Economic Research		
NCEA	National Certificate of Educational Achievement		
NDCP	National Defense College of the Philippines		
NURI	New University for Regional Innovation Project		

# Foreword

In late 2009, the UNESCO Asia and Pacific Regional Bureau for Education in Bangkok, Thailand, established the Educational Research Institutes Network in the Asia-Pacific (ERI-Net) to encourage and facilitate regional cooperation in carrying out analytical studies on tertiary education policy issues in the region.

The first task of ERI-Net was to conduct a study on the impact of the 2008 global economic crisis on higher education. Preliminary findings were shared with policy makers, university researchers and educators from China, Hong Kong SAR, Japan, Malaysia, New Zealand, Philippines, Republic of Korea and Thailand at an ERI-Net seminar held in Bangkok on July 2010. Based on the discussion, feedback and recommendation from participants, the case studies were revised and are now available in this publication.

The case studies concurred that the impact of the global economic crisis on higher education was not as severe as anticipated. In some countries, public investment on education has increased as a result of various stimulus packages. This, in part, can be attributed to the countries' recognition of higher education's potential contribution to economic growth. However, more in-depth studies are needed to provide mid- to long-term perspectives on issues such as access to higher education and public-private partnership since the economic downturn will influence household incomes and funding from government.

Finally, I would like to express my gratitude to the authors, discussants and participants of ERI-Net seminar for their efforts. I hope this publication will be useful to researchers and practitioners in this region and beyond.



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# Introduction

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This volume is the direct result of the establishment of the Educational Research Institutes Network in the Asia-Pacific (ERI-Net). In late 2009, the UNESCO Asia and Pacific Regional Bureau for Education (UNESCO Bangkok) established a network of educational research institutes to encourage and facilitate regional cooperation in carrying out analytical studies on tertiary education policy issues in the Asia-Pacific region. "The aim of ERI-Net is to build knowledge about trends and discontinuities, commonalities and diversity, challenges and opportunities, successes and failures, as well as ongoing undertakings and experiments in various systems of education".

In preparing for the establishment of ERI-Net, UNESCO Bangkok held a consultation meeting on 22-23 October 2009, where it was decided that the first task of the network should be the conduct of a research study on the impact of the global economic and financial crisis on higher education in the region.

The researchers participating in the study collected and analysed data in terms of a common research framework and questionnaire. Researchers were asked to examine emerging policies and responses to the crisis and their impact on educational and economic outcomes, as well as to suggest appropriate responses and action plans. The "Concept Note" (2009) prepared by UNESCO Bangkok for the October 2009 meeting observed that as crises of this nature seemed to be increasing in frequency, "countries which are able to keep their population educated and trained in times of trouble will emerge stronger and better equipped to meet future crisis".

The results of the various case studies were reported at the Regional Seminar on the Impact of the Economic Crisis on Higher Education in the Asia and the Pacific, held in Bangkok on 30 June – 2 July 2010 and co-organized by UNESCO Bangkok and Commission of Higher Education, Thailand. The "Information Note" (2010) for the seminar argued that the global economy is fast becoming a knowledge-based economy, and higher education is increasingly seen as central to hasten the pace of economic growth and to maintain national competitiveness. By way of reinforcing this point, the Note reiterated the Communiqué adopted by the participants of the UNESCO World Conference on Higher Education in July 2009: "At no time in history has it been more important to invest in higher education as a major force in building an inclusive and diverse knowledge society and to advance research, innovation and creativity".

At that seminar, researchers, policy makers and stakeholders discussed the implications of these studies for policy, planning and management of higher education in the respective countries. Each of the following chapters were subsequently revised in light of these discussions, and as a collective provide a rich tapestry of the diverse consequences of the global financial crisis (GFC) on a number of countries in the region: China, Hong Kong, Japan, Korea, Malaysia, New Zealand, Philippines, and Thailand.

As the chapters presented here attest and as has been confirmed in a number of other studies, the impact of the GFC has been quite varied across the region and the world. This is due in part to how governments have responded to the crises, on the one hand, and the resilience or otherwise of specific national economies to the crises on the other hand. The size of the fiscal stimulus packages of countries in the region has been considerable. Following are the 2009 Fiscal Stimulus Packages (in US dollars) of a few of the countries: Australia (26b), China (795b), Indonesia (6.1b), Japan (125b), Malaysia (1.9b), New Zealand (290m), Philippines (6.5b), Singapore (13.7b), Thailand (3.3b), Vietnam (1b) ("Concept Note" 2009).

Some countries, such as Australia, escaped the financial crisis relatively unscathed and never officially went into recession. The impact on other countries has and continues to be economically and socially devastating. Moreover, as gyrating world stock markets, slow economic recovery coupled with high unemployment in the United States and elsewhere, and the fear of the financial collapse of Greece, Ireland, Portugal and possibly other European nations indicate, the crisis is far from over. Also, it may take a number of years before the full effects of the crisis are known.

With respect to financing higher education, governments have had three options: reduce funding, increase funding or maintain the status quo. When the crisis first started to emerge in 2008, many governments responded with stimulus packages in the hope of negating the worst of the social consequences of global economic failure. Education in general, and public higher education and research in particular, often benefited from such initiatives. This is due in large part to governments' recognition in both developed and developing countries of the essential role of higher education in the new global economic order based on knowledge and innovation.

Whether the direct result of government intervention or due to a number of other factors (probably a combination of both), higher education systems in many jurisdictions have continued to expand, and cross border enrolments flourish despite the crisis.

The number of students enrolled outside their country of citizenship has increased from 0.8 million in 1975 to 3.3 million in 2008 worldwide. This growth has greatly accelerated over the past decade or so with an average annual increase of 9 per cent, "mirroring the globalisation of economies and societies" (OECD 2010). There is little or no evidence to suggest that growth in international student mobility is likely to abate in the near future, although interestingly since 2005 reflecting an "increasing preference to study in emerging countries" (OECD: 2010) the rate of growth has been higher in non-OECD jurisdictions.

Although the data is always somewhat out-of-date and difficult to come by, Varghese (2010) in one of the most extensive analysis of the current crisis, maintains that generally despite budgetary restraints, enrolments are growing and cross-boarder higher education surging. He (2010) argues that:

supportive public policies, a successful institutional restructuring process, and positive household responses (capacity and willingness to invest) have contributed to this surge in enrolment. What is more important to note is the fact that the higher education sector, once an easy target for budget cuts, appears to be more protected during the current crisis period than in previous ones. ... this reflects a major change in attitude towards investing in higher education – a greater recognition of the contributions of higher education and research to economic growth and national competitiveness. Thus, education, especially higher education, is now seen as part of the solution and is being included as an element in recovery plans and stimulus packages.

In its draft resolution to the 6th World Congress of Education International, the United Kingdom University and College Union (UCU 2011) acknowledged that "Some governments have taken the opportunity to re-affirm the role of the public sector as a weapon in the struggle for economic and social coherence and sustainability, and of higher education and research as a key area of counter-cyclical investment". But the UCU also seems to fear the potential of the cure being as bad or worse than the disease:

The crisis has been used as a pretext for the promotion of a number of core neo-conservative principles in higher education and research which challenge the core characteristics of public sector higher education including academic freedom and institutional accountability, quality and access. In particular:

- a crude market or customer-provider model is being imposed;
- costs are being shifted from the state to individuals, hitting at equality of opportunity and creating massive uncertainty about funding streams;
- private institutions and corporate for-profit providers are being encouraged and allowed to cream off more lucrative courses;
- courses and research in academic disciplines without a direct or short-term connection to the labour market or the economy are being marginalised;
- in common with the rest of the public sector, university pension schemes are under savage attack.

The UCU expresses legitimate concerns, but except for a limited number of extreme cases, probably overstate the negative impact of the market-like approach to higher education policy. This is not to say that the market approach is without problems, and whether in higher education or the banking industry, poorly regulated markets can be quite dangerous. But a more market-like approach to higher education policy, has been part and parcel of global higher education reform for the past three decades, and there is evidence to suggest that these reforms have in part helped bolster higher education systems' resilience to crisis. Varghese (2010) maintains that "the market-friendly reform in higher education pursued during the structural adjustment regime and during the period of globalization shifted the financial burden of higher education from the state to the households; this helped reduce the adverse effects of budgetary cuts in higher education". In a similar vein, and based on evidence from a UNESCO (2009) survey of 51 countries on the impact of the crisis, Schneller (2010) writes that:

In general, it can be noted that the crisis stimulated patterns of financial autonomy of universities in terms of cost sharing (tuition and other fees), cost-recovery (different types of student loans) and financial diversification (income-generation and fund-raising), making them less reliant on government budgets.

Another factor which may have bolstered the resilience of Asia-Pacific nations to the current crisis are the lessons learnt from the 1990s Asian financial meltdown. In the summary paper of the 1st Asia-Europe Education Workshop on "The Impact of the Financial Crisis to Higher Education" held in Manila in 2010, Schneller and Goled (2010) observe that "the global financial crisis has not affected higher education institutions across ASEM [Asia-Europe Meeting] countries as badly as initially assumed". Of course, some budget adjustments have had to be made, but the "impact of the crisis has simply been less severe in many countries in the Asia Pacific which have avoided a recession despite a declining GDP growth rate", not only due to government stimulus packages, but also the result of lessons learnt from managing past crises:

Most Asian countries, which had suffered severe crisis in 1997 with substantial impacts on higher education, have been hit less harshly by the current crisis than by the previous (1997) one. As a number of case studies presented by Asian expert participants illustrated, the crisis was generally softer on Asia (because it adjusted after the 1997 crisis) than on Europe or the USA in terms of slower economic development and related pressure on government budgets for education. [For example] ... Indonesia has probably suffered more from natural disasters than from economic crisis - thanks to continued government expenditure on education (ibid).

In general, the chapters presented in this volume draw a somewhat similar conclusion. Clearly the response across the countries has been varied, but far from uniformly negative.

As mentioned above, the chapters have been prepared according to a common research framework containing three basic research questions:

- what is the impact of the economic crisis on higher education budgets and government responses to cushion the impact;
- what is the impact of the crisis on households and their demand/affordability for higher education; and
- what are the implications for long-term planning in the education sector?

This introductory chapter will conclude with a brief overview of the results of the country studies. Each chapter begins with a general analysis of the impact of the GFC on the economy and society, followed by a more specific exploration of the consequences for education generally and higher education specifically.

# China

## China's economy and the impact of the crisis

Changjun Yue in Chapter 1 "The impact of the global financial crisis on higher education in China" observes that in 2010, following 30 years of economic growth, China overtook Japan as the world's second largest economy and Germany as the world leading export economy. The structure of the Chinese economy is shifting. Primary industry contributes a declining proportion of GDP (from around 30 per cent in the 1980s to 10 per cent in 2009), the secondary sector has remained steady (around 45 per cent over the past 30 years) and the tertiary sector is growing (43 per cent in 2009).

Yue argues that the financial crisis in the US in late 2007 had an immediate impact on the Chinese financial sector. After an initial steep fall, both the Shanghai Composite Index and the Shenzhen Component Index began to rise by November 2008. In late 2008, the contraction in global trade resulted in a fall in exports (by 18.3 per cent) and imports (by 13.7 per cent) although by late 2009, both started to grow again. The GDP growth rate slowed from 13 per cent in 2007 to 9 per cent in 2009, but recovered to 11 per cent in the first half of 2010. Unemployment increased as thousands of export producing factories closed or reduced the number of workers. The slowing Chinese economy resulted in a decline in business profits and the government's tax revenue.

## The government's response to the crisis

At the end of 2008 the Chinese government introduced a set of measures to stimulate the economy. These included, according to Yue, tax cuts which further eroded government revenue leading to a dramatic increase in the size of the deficit. The government's 4 trillion CNY (586 billion USD) stimulus package also included investment in housing, rural infrastructure, transportation, health, education, social security, affordable housing, environmental protection, industry support and disaster recovery. Only a small proportion of the total package was allocated to higher education.

The package increased employment in state-owned enterprises which helped counter employment reductions in foreign-funded and private enterprises. Measures introduced in 2009 successfully shored graduate employment against a background of increased rates of unemployment. Yue observes that there remains a gender gap in graduate employment opportunities and starting salaries.

## The education system

Since 1999, there has been a rapid expansion in the higher education sector (covering college, undergraduate and graduate programs). The enrolment rate increased from 15 per cent in 2002 to 24 per cent in 2009, although as Yue states in Chapter 1, this is still below the average rate for developing countries. Employment pressures have increased the demand for graduate education and there has been an increase in the number of Chinese students studying abroad.

The main sources of higher education revenue are government funding (almost 44 per cent in 2007) and income generated by teaching, research and other activities (almost 47 per cent). Since 1995 there has been sustained growth in public funding for education, including growth in funding for higher education (10.3 per cent in 2003, 30.4 per cent in 2007 falling to 26.2 per cent in 2008). Despite this, the size of the public contribution towards higher education (as a proportion of GDP) is lower than in comparable countries.

## Implications for higher education

Yue concludes by demonstrating that the economic crisis resulted in a reduction in the growth rate of government funding, endowments as well as the market value of university endowment funds. Further, it was not possible to increase income from tuition fees by either increasing the fees or enrolment levels. In late 2009, the government introduced a policy of matching private donations to universities to help build this source of revenue.

The Chinese government has identified education as a strategic priority and public funding, including to higher education, will continue to increase. The global financial crisis put pressure on the government to make structural adjustments to the education system. In 2010 it adopted a medium to long-term national reform and development plan (2010-2020) to modernise its education system. Yue explains that this plan prioritises the development of education in rural areas, particularly from pre-school to the vocational level. The big challenges are to provide high quality higher education and improve equality of access.

## Hong Kong SAR, China

### Hong Kong's economy and the impact of the crisis

Hong Kong, a Special Administrative Region within China, is a globally-integrated economy and the world's third largest financial centre and therefore, according to Cheng, Oleksiyenko and Yip in Chapter 2, is highly vulnerable to global financial crises. The Hang Sen fluctuated significantly between 2007 and 2010, but strengthened in late 2009. Between 2008 and 2009 there was a growth in rates of unemployment (3.6 to 5.3 per cent) and underemployment (1.9 to 2.4 per cent). GDP declined in 2008 but has risen since the start of 2009. Real estate, another major part of Hong Kong's economy, was relatively unaffected.

Cheng and his colleagues argue in Chapter 2 that the effects of the crisis in Hong Kong had largely dissipated by mid-2010. The rapid recovery and the relative stability of Hong Kong's financial situation is attributed to relatively minor impact of the crisis on China, Hong Kong's main economic partner. The government experienced an initial drop in revenue but this was restored by the second half of 2009. Its sizeable reserves at the start of the crisis helped cushion the impact.

### The government's response to the crisis

When faced with the economic crisis, the government of Hong Kong increased public expenditure, including a substantial increase in education expenditure (41 per cent between 2007/8 and 2008/9). The government was driven by the desire to make structural changes in Hong Kong's economy, support Hong Kong's involvement in the development of mainland China and to address issues of social inequality.

### The education system

Chapter 2 explains how Hong Kong is transforming its education system, shifting from a British style system to one aligned with other systems in the region. This includes replacing the three-year undergraduate structure with a four-year structure by 2016. The government remains committed to the autonomy of universities supported by triennial funding, which is channelled through the University Grants Committee. Changes to the secondary school system are expected to increase demand for higher education places. In preparation there has been an expansion of infrastructure and a recruitment drive to increase the numbers of academics.

Cheng, Oleksiyenko and Yip make the fundamental point in Chapter 2, reiterated in many of the other chapters and reinforced by the higher education literature generally, that the government sees education as a strategic industry supporting the development of a knowledge economy. Underpinning this is a commitment to continue increasing per-student recurrent expenditure and as well as building research and development (R&D) capacity. A key feature of the transformation of Hong Kong's education system has been the expansion of the private sector, which includes new private universities and self-funded post-secondary institutions. Government loans and land grants have been provided to support the private education sector. There has been a change in the nature of research funding. R&D is growing more rapidly in the business sector than in the academic sector. The government has established an endowment fund to support increased research collaboration between universities and businesses.

Hong Kong has made a long-term commitment to internationalising education and research seeking to establish itself as a regional education hub. Universities are being encouraged to engage with the East Asian region, particularly mainland China, through various exchanges, internships and other mobility programs as well as the establishment of satellite campuses. This includes a PhD fellowship scheme to attract top students from around the world.

## Implications for higher education

Cheng and his colleagues argue that the nature of the government's interventions meant that the financial crisis did not have a significant impact on higher education in Hong Kong. However, there are signs that households are struggling to meet education related financial commitments. This has implications for equality of access and may have longer-term consequences.

# Japan

## Japan's economy and the impact of the crisis

After the post-World War II restoration, Japan experienced a long period of strong economic growth weathering both the oil shock of the 1970s and the Asian economic crisis of the late 1990s. Since 2007 Japan has been in recession, which, combined with a declining population, has made recovery from the global financial crisis difficult. As Huang observes in Chapter 3, the collapse in world trade resulted in the most severe recession of the post-war period.

Japan, as Huang explains, is an export-led economy and therefore more susceptible to the impact of global financial crises. Growing since the 1980s, the services sector is now the largest part of the Japanese economy. The second largest sector is industry, based on highly advanced and efficient manufacturing. Like most other developed countries, Japan also has a small agricultural sector.

The impact of the global financial crisis was evident in three areas: financial markets (affecting stocks, corporate bonds, lending, exchange rate – a weak yen), the real economy (sharp decline in imports and exports, sharp drop in private consumption, short-term rise in the rate of inflation) and unemployment (which rose between 2008 and 2009). Between 2007 and early 2009 there was a sharp drop in the growth rates of the real GDP and the GNI. A decline in tax revenue and steep increase in expenditure resulted in an increased budget deficit.

## The government's response to the crisis

Huang observes that the Japanese government responded to the crisis by adopting three main strategies: first, to increase exports to emerging economies (particularly in Asia) and expand direct investment in emerging nations; second, to enhance productivity; and third, to stimulate domestic demand. The government, writes Huang, "developed plans to explore new domestic and foreign

markets (market expansion) and build up a strong, new structure that can adapt to change (market maintenance).” Some measures were part of a long-term economic development strategy and not simply in response to the crisis.

## The education system

The Japanese higher education system consists of universities, junior colleges and colleges of technology, a majority of which are privately run. The private institutions are market-oriented and focus on social sciences and humanities. The national elite and other public institutions are expected to support scientific research as well as provide educational opportunities to a wider section of the population. Compared to private institutions, national and public institutions charge lower tuition fees and tend to have a lower ratio of faculty members to students.

## Implications for higher education

The global financial crisis had a significant impact on the Japanese economy however, according to Huang’s Chapter, it had no major impact on the higher education sector. However, the author concedes that it may be too early to judge and this question should be revisited in the future.

There were minor changes in three areas: funding, enrolment and graduate employment. Between 2008 and 2009 there was a slight decrease in the budget for education and science. This was followed by a sharp increase once the economy started to recover. There was no increase in the tuition fees at national universities and a slight increase in fees collected by private universities. Between 2008 and 2009 there was a slight rise in the number of students at universities but a decline in the numbers in junior colleges and colleges of technology. Over the same period there was a slight decrease in the employment rates of junior college and university graduates (including those with masters and doctoral degrees). However, as Huang illustrates, there was no major change in the employment rates of graduates from professional degree courses.

## Republic of Korea

### Korea’s economy and the impact of the crisis

Lee and Yi in Chapter 4 on Korea show that as a result of the global financial crisis, inflation reached 5.5 per cent in the third quarter of 2008, however this reduced to 2 per cent in the third quarter of the following year. Unemployment rates were high from the second half of 2008 to early 2010 and household income declined. Korea’s national debt increased from 30.7 per cent in 2007 to 35.36 per cent in 2009, although this is still below the average national debt in G20 countries.

### The government’s response to the crisis

In September 2008, the Korean government allocated a supplementary budget of 4.9 trillion KRW. The 2009 budget was revised, with 11.4 trillion KRW of additional programmes. In response to the crisis, the Korean government introduced various programmes to stabilise the financial markets and revive the domestic economy. This, as Lee’s and Yi’s Chapter explains, included measures to assist low-income families; expand and sustain employment; assist small to medium businesses, and to stabilise financial markets (including foreign exchange markets). The government also used early execution of budgets to stimulate the economy.

During the first quarter of 2009 economic growth was positive. By the latter half of 2009, the domestic economy was ‘back on track’, according to the Lee and Yi. The recovery continued into 2010 with growth in both consumption and investment, resulting in a large current account surplus. As a result spending in the 2010 budget was reduced.

## The education system

Over the past decade or so, as documented in Chapter 4, Korea has increased the size of the higher education sector in terms of the number of institutions, students and faculty. The expansion was largely due to the growth in private institutions, which followed the 1997 introduction of simplified regulations governing educational institutions. Almost 87 per cent of higher education institutions are private with almost 75 per cent of higher education students enrolled in private institutions. Almost 80 per cent of government funding goes to private institution with just over 20 per cent to public institutions. Higher education enrolments peaked in 2008. Factors behind the decline include declining school-age population and more students opting to study abroad.

Education funding comes from the government, private education foundations, students, parents, companies and social groups. Sixty-two per cent of the private institutions' revenue and 32 per cent of national and public institutions' revenue come from tuition fees. Interestingly, tuition fees are increasing more rapidly in public compared to private institutions.

Since 2000, the Korean government has been increasing its investment in higher education. In 2009, responding to the financial crisis, the government funded initiatives to: increase the capacity of universities (support university specialisation and diversification; improve university systems and structures); generate employment opportunities for graduates; raise academic research capacity; and build infrastructure for a national scholarship system. The higher education budget was reduced in 2010 (compared to 2009) as the economy improved.

## Implications for higher education

According to Chapter 4, the global financial crisis had a minimal impact on the Korean higher education system. Government initiatives resulted in a rapid economic turnaround. Increasing scholarships, loans to help students continue their studies and job creation programmes were also important. Institutions restricted tuition fee increases in 2009 because of households' reduced capacity to pay.

Future challenges include demographic changes leading to an over-supply of higher education places. In response, the government is seeking to restructure universities (mergers and consolidation) and improve the quality of education (performance based assessment and budgeting, quality assurance system). There are also calls for increased public investment in public education (which is low compared to the OECD average). The government is also seeking to facilitate greater access for people from underprivileged groups, mainly through providing additional loans.

# Malaysia

## Malaysia's economy and the impact of the crisis

Malaysia's dependency on exports meant that it was hit by the contraction of global demand. In January 2009, exports fell by 27 per cent. Malaysia experienced negative growth rates in the first three quarters of 2009 before rebounding in the final quarter. There was also a decline in direct foreign investment, and Malaysia experienced a flight of capital. Large capital outflows and declining demand for exports lead to a cut in the value of the Malaysian Ringgit. Inflation rose, peaking in the third quarter of 2008, falling by the third quarter of 2009. Except for a brief period (1993-1997), the federal government's budget has been in deficit since independence. In 2009 the deficit increased to 7 per cent of GDP as government expenditure increased in response to the global financial crisis. As a result of the crisis, there was an erosion of Malaysia's current account surplus. Malaysia rebounded with the global economy recovering. Strong domestic demand fuelled economic growth (9.5 per cent in the first half of 2010). But as Sirat, Bakar and Hwa argue in Chapter 5, it is anticipated that such high growth rates cannot be sustained because of slowing growth in advanced and emerging economies.

## The government's response to the crisis

In 2009 the federal government increased expenditure to minimise the impact of the global financial crisis and prevent the country from sliding into a deep recession. There were a series of economic stimulus packages as well as expenditure under the 9th Malaysia Plan. Operating expenditure was increased by 2.3 per cent, development expenditure (including education and training) by 15.6 per cent. The first stimulus package (November 2008) focussed on construction and infrastructure development. The second package (March 2009) was much larger and more comprehensive (implemented in 2009-2010). Almost 0.5 per cent of the second package was allocated to higher education, as Sirat and his colleagues document. As the economy recovered, the government reduced spending to reduce its deficit and stabilise the economy (10 per cent reduction in the 2010 budget).

## The education system

Sirat, Bakar and Hwa write in Chapter 5 that the Malaysian government is driving the transformation of the higher education system to 'develop first-class human capital' as set out in the 9th Malaysian Plan (2006-2010) and the 10th Malaysian Plan (2011-15). The higher education system comprises public universities, polytechnics and community colleges as well as private colleges, overseas branch campuses, open and virtual universities, and IT academies. Public institutions receive 90 per cent of their funding from the government. About 90 per cent of government expenditure goes to public universities and the rest to polytechnics and community colleges. Fees, student intake and to some extent programmes for public universities are determined by the federal government. To increase revenue, universities are turning to other activities, e.g: consultancies, professional development programmes and off-shore programmes.

## Implications for higher education

The global financial crisis had a low impact on the higher education sector, however the authors of Chapter 5 state that there may be longer-term consequences. Overall education expenditure increased by 21 per cent in 2008 and 18.7 per cent in 2009 (compared to the previous years). Expenditure on higher education declined by 6.4 per cent in 2008 (11.9 in real terms) but increased by 47.8 per cent in 2009. Funding was allocated to improve facilities; for scholarships; the establishment of ten community colleges; and the purchase of medical equipment for teaching hospitals. The injection of funds supported the National Higher Education Strategic Plan 2020, including the MyBrain 15 project (aimed at increasing the number of Malaysians with doctorates). The higher education allocation in 2010 budget was reduced by 7.7 per cent (compared to 2009) but was almost unchanged as a proportion of the total budget outlay. In response to more recent funding cuts, according to Sirat, Bakar and Hwa, institutions have cut costs (staff recruitment, travel) and put some development projects on hold.

In 2009 (compared to 2008) student admissions and total enrolments in higher education increased and at a higher rate for postgraduate compared to undergraduate programmes. While student admissions to public institutions increased by 15.3 per cent, admissions to private institutions fell by 9.2 per cent, likely due to differences in costs. Future challenges are: how to build a culture of excellence, improve access and find alternative sources of funding.

# New Zealand

## New Zealand's economy and the impact of the crisis

New Zealand has a small, very open economy with no import tariffs. The structure of the economy is primary sector (over 7 per cent of GDP), manufacturing (almost 20 per cent) and the services sector (almost 70 per cent). Exports, which account for approximately 25 per cent of GDP, slumped as the crisis hit, resulting in a loss of business and consumer confidence. Economic growth fell sharply after Mid-2008 and remained negative each quarter after the final quarter of 2008. Investment in housing and capital formation shrunk. Unemployment increased from under 4 per cent at the start of 2008 to almost 8 per cent in early 2010. Inflation peaked at 5.3 per cent in the third quarter of 2008 then fell to around 2 per cent in the third quarter of 2009. High interest rates were set by the Reserve Bank to control inflation. The mainly Australian-owned banking system was largely unaffected by the global financial crisis. Between early 2008 and early 2009 there was a fall in the value of the New Zealand dollar (which had appreciated significantly against major currencies between 2000 and 2008). This was followed, according to Gunby and Healey in Chapter 6, by a rapid recovery.

## The government's response to the crisis

The authors describe in Chapter 6 how in early 2009, the New Zealand government developed a fiscal stimulus package (tax cuts and spending initiatives) to restore confidence and prevent the economy slipping into a deep recession. The package included additional funding for higher education, including funding for universities to employ students as research assistants over 2009/10 summer break, and funding to support the recruitment of international students. Responding to Treasury predictions of a ballooning debt to GDP ratio, the government has a new medium-term strategy to steadily reduce public expenditure (from 37.8 per cent of GDP in 2010 to 31.8 per cent of GDP in 2025). Given the aging population with increased demands on health and social welfare services, Gunby and Healey note that this is a challenge. As there is no desire to increase the level of taxation, there will need to be deep structural cuts in various areas, including higher education.

## The education system

There are eight public comprehensive universities in New Zealand. They have three main sources of revenue: government funding, tuition fees from domestic students (regulated by government) and tuition fees from international students. The government pays tuition subsidies to universities for domestic students. It also pays means tested student allowances and provides loans to domestic students to help with tuition and living costs. Until the financial crisis, higher education policy was focused on raising participation rates, particularly for under-represented groups. All New Zealand 16 to 19 year olds with University Entrance certification and all adults over 20 years of age have an entitlement to enrol at any university. This is regarded as a civil right and has led to high participation rates, 41 per cent in 2007, compared to an OECD average of 30 per cent, although rates vary for different ethnic groups. Even before the crisis this situation was considered to be unsustainable as the government could not control the expansion of enrolments and therefore its outlay. Gunby and Healey note in Chapter 6 that there was also growing concern about the quality and outcomes of some programmes.

## Implications for higher education

Chapter 6 explores how the global financial crisis exposed problems in the New Zealand higher education system. From 2007 the government negotiated caps for the number of funded places at each institution. However, in practice it was difficult for universities to control enrolments because

of the entitlement. As a result all universities were 'over-enrolled' and the government remained liable for student support. In a controversial move, three universities used their right to limit entry to programmes with demonstrable capacity constraints (e.g. medicine and dentistry) to limit entry into all undergraduate degrees. Public expenditure on tertiary education (universities and polytechnics) grew strongly in the period up to 2008. In 2010, as Gunby and Healey observe, the government announced that it would fund on enrolments and results rather than just on enrolment numbers. Given that the entitlement remains, there is concern that this creates an incentive to lower failure rates. The government also announced tighter eligibility for student support. Higher education is therefore set to become more expensive and selective. Universities are encouraged to increase enrolments of international students. The growing number of international students fell sharply after 2005 because of growing competition from other countries and the strong New Zealand dollar. Numbers now appear to have stabilised.

## Philippines

### Philippines's economy and the impact of the crisis

Thirty per cent of Philippines total national income is generated by exports and 10 per cent by remittances from Overseas Filipino Workers (OFW). The services sector is economically significant, contributing 50 per cent of GDP. Agriculture is also important.

The impact of the GFC on the Philippine economy is described by Tayag in Chapter 7 as "mild", with the country experiencing a downturn rather than a recession, although the most disadvantaged experienced the greatest hardship. The first sign of the economic downturn in the Philippines was a sharp drop in the stock index in January 2008. By October 2008, the downturn was pronounced with total exports contracting by 14.9 per cent. Philippines's modest economic growth (an average of 4.2 per cent between 1995 and 2005, 5.3 per cent in 2006 and 7.1 per cent in 2007) slowed to 3.8 per cent in 2008, and then dropped to 0.9 per cent in 2009. Growth in GNP dropped from 7.5 per cent in 2007 to 6.2 per cent in 2008 and then to 3 per cent in 2009. The situation improved in 2010 with a GNP growth rate of 9.5 per cent. Revenue from exports (mainly electronics, clothing and agricultural produce) contracted by 2.8 per cent between January and December 2008 and by 21.9 per cent in 2009. Export figures improved in the fourth quarter of 2009, showing growth of 5.1 per cent. Although the numbers of Filipino workers employed overseas continued to rise during the economic crisis, the growth rate slowed (3.89 per cent in 2009 compared with 14.7 per cent in the previous year). Remittances grew by 5.6 per cent in 2009, compared with 13.7 per cent in 2008. According to Tayag, the continued growth is attributed to: proportion of OFW in countries not significantly affected by the GFC, employment in occupations (such as health and engineering) for which there is strong demand and government initiatives to explore new markets for OFW. The banking and financial system remained strong throughout the crisis. According to official data, there was only a small rise in unemployment rates (from 6.3 per cent in October 2007, to 6.8 per cent in October 2008, and 7.1 per cent in October 2009). These figures, as Tayag notes, do not reveal the extent of underemployment and other surveys reveal much higher rates of unemployment. The GFC coincided with food and fuel shocks in 2008 and the arrival of typhoons Ondoy and Pepeng in 2009. Government revenue declined by 6.6 per cent in 2009, with the shortfall covered by domestic and foreign loans. The fiscal deficit as a percentage of GDP rose from 0.9 per cent in 2008 to 3.9 per cent in 2009.

### The government's response to the crisis

It is interesting to note as discussed above that Tayag also maintains that studies of the Asian Financial Crisis informed the government's handling of the GFC. The government did not reduce expenditure

when the economy slowed. It implemented a 330 billion PHP (7.2 billion USD) stimulus programme 'Economic Resiliency Plan (ERP), which included: tax cuts, community-level and large infrastructure projects, additional social security benefits. The focus was on 'quick disbursement and employment generating projects.' Despite these initiatives, private construction contracted during the last three quarters of 2009. A 3.5 per cent contraction in fixed capital formation raises concerns about the longer-term development of production capacity.

## The education system

Twelve per cent of higher education institutions in the Philippines are public and 88 per cent private. However private institutions only account for 62.6 per cent of higher education enrolments. Private higher education institutions depend largely on tuition and other fees, although some receive donations and grants. Most of the government's funding for higher education is directed to public institutions. Tayag documents that funding for higher education increased (compared with the previous year) in 2007 (22.15 billion PHP compared to 21.6 billion in 2006), 2008 (24.12 billion PHP) and 2009 (28.24 billion PHP) before dropping in 2010 to 24.6 billion PHP. In 2007, higher education received 13.3 per cent of the total education budget, dropping to 12.8 per cent in 2009, with a proposed allocation of 10.5 per cent in 2010.

According to Tayag, if the Philippines is to continue to rely on remittances, it will need to produce a larger number of highly skilled workers, able to compete in the international labour market. This is only possible if the higher education sector is adequately funded. The Commission on Higher Education has proposed that the education budget be increased by 4 per cent, with 15 per cent of the total education budget allocated to higher education. The author argues that "this would enable the subsector to upgrade higher education provision to international standards and to produce more highly skilled graduates".

## Implications for higher education

While overall expenditure for education was not curtailed, the allocation for higher education was reduced in 2010. Some public institutions were able to generate additional income to make up the shortfall, however most could not. Tayag expresses concern that the budget reduction "could seriously hamper the higher education subsector's efforts to improve the quality of education provided and to produce globally competitive graduates". Between 2006 and 2009, there was an increase in the number of higher education institutions and programmes. However, there was a decline in the number of enrolments in priority fields. The establishment of a Labour Market Information System has been proposed to provide more reliable information on national and international labour markets. Tayag suggests reviewing student scholarships and institutional grants to steer students and institutions towards courses that meet the needs of the market and the country. Another impact of the GFC was the movement of students from private to public higher education institutions.

# Thailand

## Thailand's economy and the impact of the crisis

In the final Chapter, Sinlarat indicates that as a result of the GFC, there was a reduction in demand for manufactured goods in Thailand from key purchasers such as the US, Europe and Japan. There was also a decline in tourism. Sinlarat states that unemployment, particularly of educated people, increased. He claims that the unemployment rate for graduates in 2008 was 28.98 per cent.

Chapter 8 illustrates that Thai economic growth declined from 4.9 per cent in 2007 to 2.5 per cent in 2008 and 2.2 per cent in 2009. This was reversed in 2010, with a higher than expected growth rate of 12 per cent recorded in the first quarter. Economic forecasts predicted between 3.5 and 4.5 per cent growth for the year. However, Sinlarat argues, the economy remains vulnerable because of: the risk that European debt crisis will jeopardise global economic recovery, the danger that political instability in Thailand will continue to negatively impact on both tourism and the Thai government's ability to implement its stimulus package, increased private capital outflow because of reduced confidence in the local economy, and a severe drought. The author states that increased unemployment among graduates contributes to national instability.

The Thai government's domestic revenue fell from 1,835,000 million THB in fiscal year 2009 to 1,700,000 million THB in fiscal year 2010. Government expenditure increased each year from 2006 (when it was 1,360,000 million THB) to 2009 (1,835,000 THB). The allocated budget for 2010 was lower, set at 1,700,000 million THB, in part due to reduced capital expenditure. Increased borrowings, particularly in the form of domestic loans and grants, have left Thailand with a large debt.

## The government's response to the crisis

Like many other countries, in response to the GFC the Thai government introduced an economic stimulus package.

## The education system

There are eight categories of tertiary education institutions: public universities with limited admissions; autonomous public universities, open universities, the Rajabhat University, the Rajamongala University of Technology, public vocational colleges, private universities and private colleges. There are 143 higher education institutions, 77 are private and 66 public. Between 2006 and 2009, there has been a decline in the number of students enrolled in higher education (from 2,054,426 students in 2006 to 2,008,851 in 2008). The Thai government's expenditure on education was 21.7 per cent of national expenditure in 2006, rising slightly to 22.7 per cent in 2009 and then to 23.7 per cent in 2010. Most of this is allocated to the provision of basic education. Expenditure on higher education was 17.6 per cent of the total education budget in 2006, 18.7 per cent in 2009 and falling to 16.6 per cent in 2010. According to Sinlarat, government spending on public universities is inadequate and there is a crisis in the Thai education sector with a large proportion of graduates "not sufficiently competent in their field". There have been efforts to improve the quality of and increase access to higher education, including the "provision of educational loan funds, establishment of new universities, transformation of existing public institutions into private universities, reform of the central university admission system and the promotion of research and innovation".

## Implications for higher education

Chapter 8 documents that as a result of the GFC, there has been a fall in the value of higher education institutions' endowments funds, a reduction in endowments and delays in the provision of promised donations. In his conclusion, Sinlarat makes the point that although the economic crisis has had a negative impact, it presents the opportunity to implement politically difficult structural reforms, including the strengthening of administrative systems and enhancing quality of education.

## Conclusion

The analyses of the impact of the GFC on the higher education systems of the eight countries presented in this volume demonstrated that it has not been as severe as first feared. All countries

to varying degrees have experienced hardships. But their higher education systems have not been devastated, and in fact have in some cases benefited from aspects of the various stimulus packages. This is due to far more than mere luck. Governments nearly everywhere, and clearly those of the countries presented here, are beginning to recognise and protect the unique contribution that higher education institutions and systems are making to the knowledge economy and society. This observation, however, is not all that new or solely relevant to the current crisis. Varghese (2001) in his analysis of the Asia financial crisis of the late 1990s writes that:

“Education can be used as a good mechanism to fight crisis. ... [I]n the context of the globalization process, competitiveness depends on the quantity and quality of higher education provided by the system. The role of higher education in sustaining competitiveness in the globalized economy can be emphasized in the strategies to combat the crisis. Investing in higher education can be adopted as a common strategy to overcome crisis ... In other words, investing in education helps households to overcome their difficulties and investing in higher levels of education helps improve the competitiveness of the economy”.

Evidence from the present GFC appears to suggest a more or less global continuation of the theme of government recognition of the importance of higher education to economic competitiveness. However, this is no cause for complacency. In good times and bad, higher education institutions and systems must continuously demonstrate their value and relevance to both governments and society more broadly.

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# China

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# 1. Impact on China's economy and society

Since the implementation of the reform and opening up policy in 1978, China has enjoyed an economic boom. In 2008, China overtook Germany and became the third largest economy in the world, ranked only behind the United States and Japan. In 2009, China's Gross Domestic Product (GDP) amounted to 4.98 trillion United States dollars (USD), very close to that of Japan (5.07 trillion USD). In 2010, owing to its high growth rate, China overtook Japan and became the world's second largest economy.

Primary industry in China has been shrinking as a proportion of GDP over the past four decades, falling from around 30 per cent in the 1980s, to 10.3 per cent in 2009. Secondary industry has remained relatively steady for the last 30 years, making up about 45 per cent of GDP each year, on average. For example, in 2009 secondary industry made up 46.3 per cent of GDP. Tertiary industry has been growing rapidly since the 1980s. It accounted for 43.4 per cent of GDP in 2009.

Though contributing least to GDP, primary industry accounts for the largest share of employment, making up 38.1 per cent at the end of 2009. In 2009 the secondary and tertiary industries accounted for 27.8 per cent and 34.1 per cent, respectively.

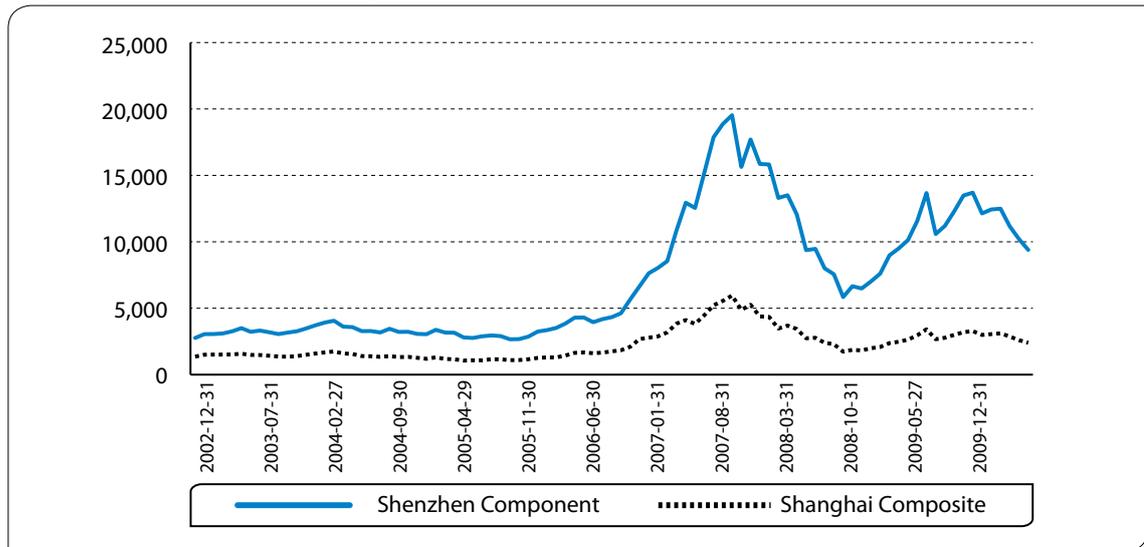
International trade is crucial for China's economy. China's economy is regarded as being export-led and the degree of dependence on exports has increased rapidly over the past six years. China's exports were 20.09 per cent of GDP in 2001, but in 2007 the proportion had risen to 35.2 per cent. In January 2010, China overtook Germany to become the world's largest exporter and remains the world's second largest importer, behind the US.

In 2008, both the global economic crisis and the appreciation of the China Yuan Renminbi (CNY) slowed down the growth of exports. That year, the share of exports in terms of GDP fell to 32 per cent, and, for the first time since China entered the World Trade Organization (WTO) in 2001, the growth rate of exports fell below 20 per cent.

## 1.1 Impact on the financial sector

In 2007, financial issues in the United States had immediate impacts on China's financial sector, with both the Shanghai Composite Index and the Shenzhen Component Index falling steeply in November. Over the following year, the Shanghai Composite Index and the Shenzhen Component Index dropped, by 4,225.98 and 13,691.83, respectively. By November 2008, however, both the indexes had begun to rise again.

**Figure 1: Behaviour of stock price indexes, 2002-2009**

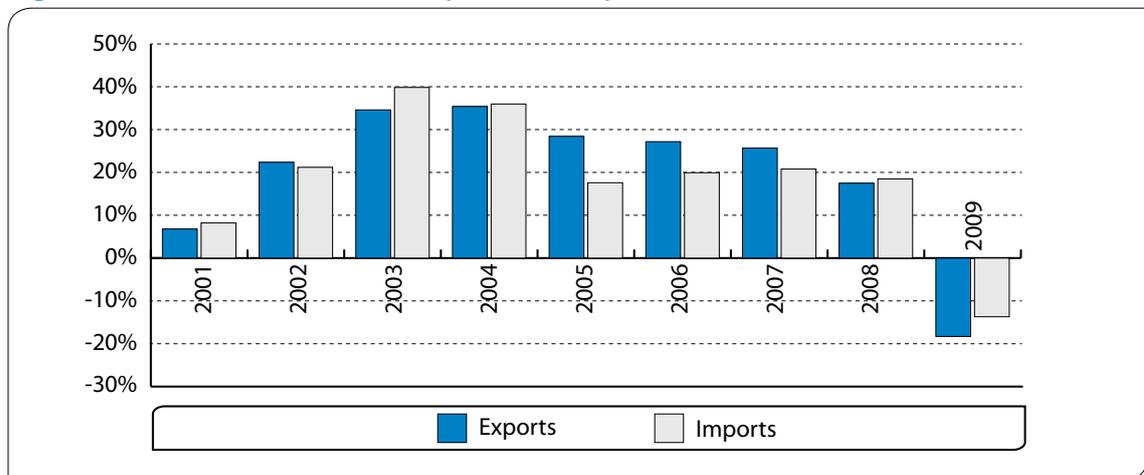


Source: Wind financial database

## 1.2 Impact on international trade

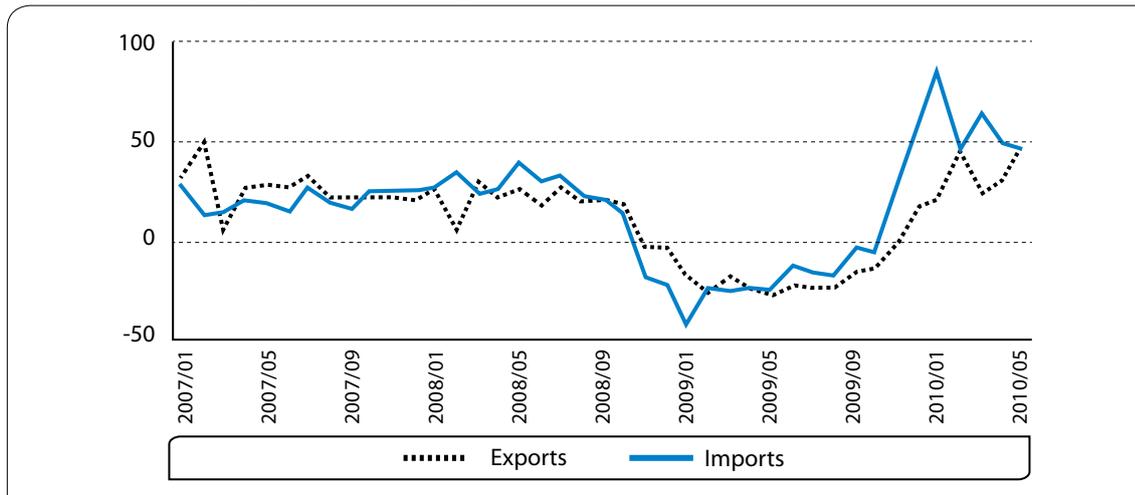
Although China's financial sector was affected by the global financial crisis, China's GDP continued to grow at the rapid speed of 13 per cent. In late 2008, however, China was affected by the contraction in global trade, which led to a fall in China's exports of 18.3 per cent and a drop in imports of 13.7 per cent in 2009. This was the first time these growth rates were negative in 30 years.

**Figure 2: Growth rate of China's imports and exports, 2001-2009**



Source: National Bureau of Statistics of China

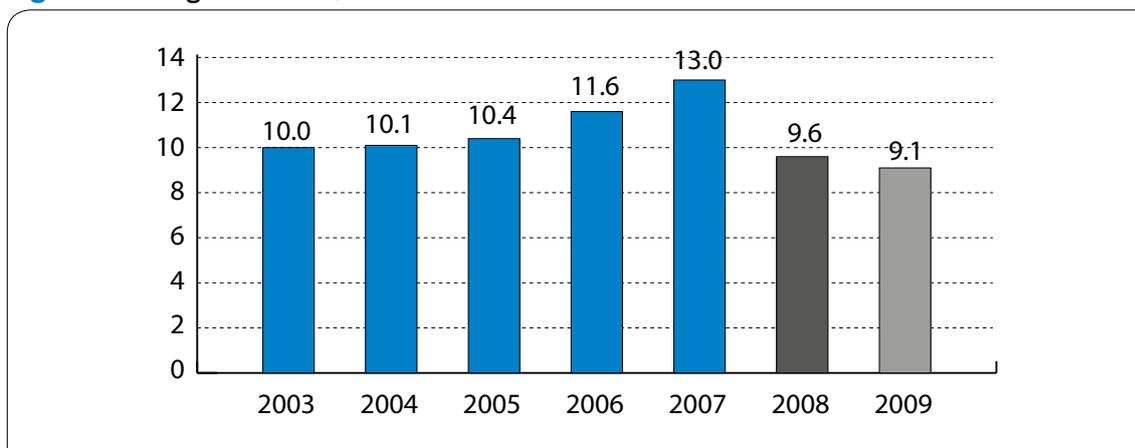
At the end of 2009, both imports and exports began to increase again. In the first half of 2010, the growth rate of imports was 52.7 per cent and the growth rate of exports was 35.2 per cent.

**Figure 3:** China's export and import growth rates, 2007-2010

**Source:** Development Research Centre of the State Council

### 1.3 Impact on growth of GDP

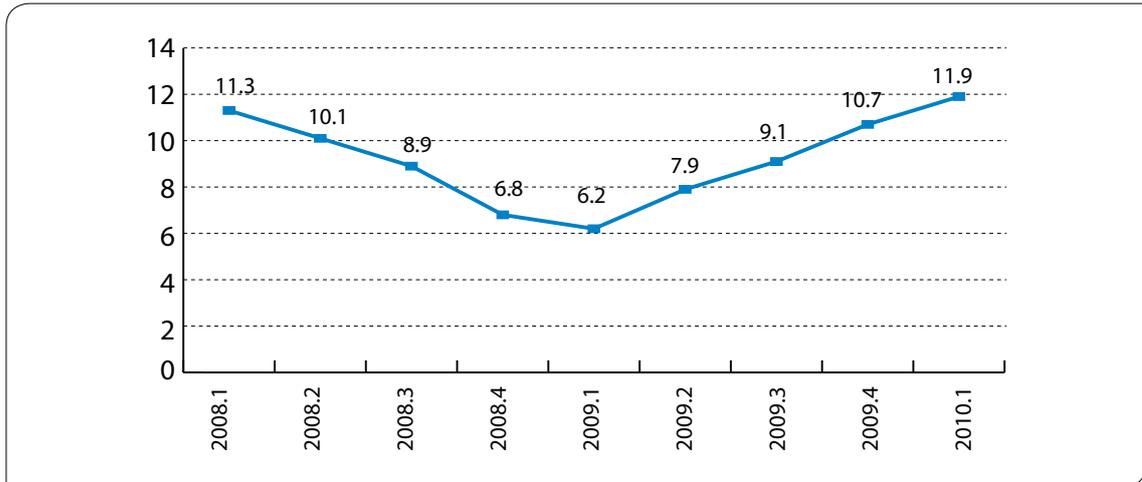
China's GDP growth rate, which was above 10 per cent for five years in a row between 2003 and 2007, fell to 9.6 per cent in 2008, then fell to 9.1 per cent in 2009.

**Figure 4:** GDP growth rate, 2003-2009

**Source:** National Bureau of Statistics, China Statistical Abstract 2010

In the first half of 2010, the growth rate of GDP recovered and rose to 11.1 per cent, which was higher than in the first half of 2008.

**Figure 5: GDP quarterly growth rates, 2008-2010**

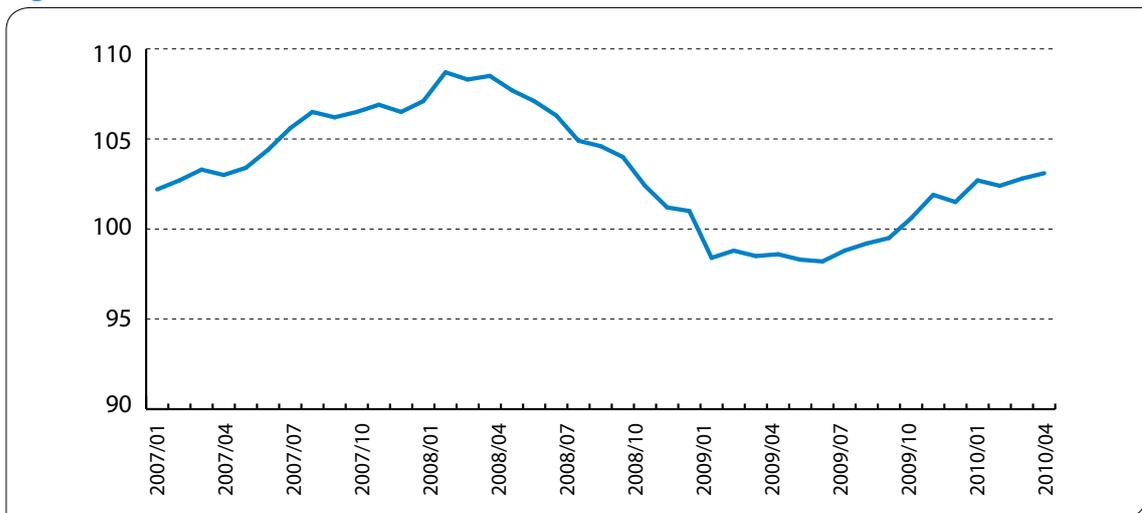


**Source:** National Bureau of Statistics

## 1.4 Impact on the consumer price index

Between February and October 2009, China experienced a period of mild deflation, with the Consumer Price Index (CPI) dropping below 100 for the first time since the turn of the new century.

**Figure 6: China's Consumer Price Index, 2007-2010**



**Source:** Development Research Centre of the State Council

## 1.5 Impact on employment

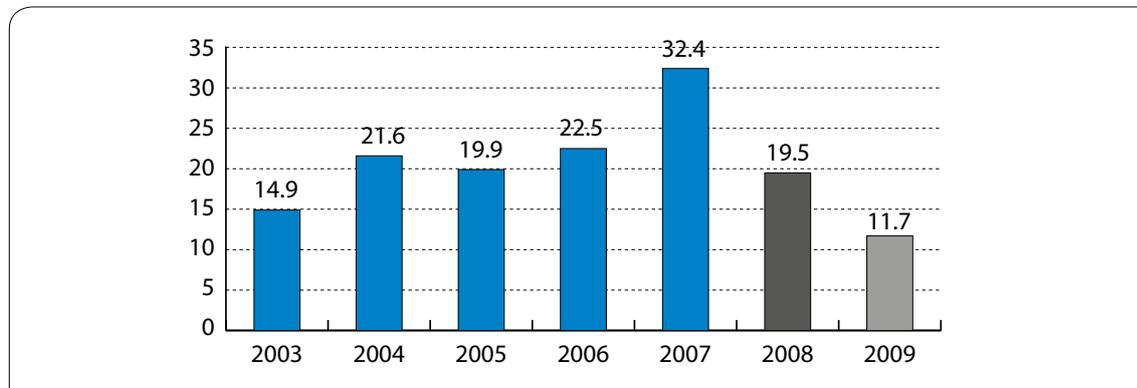
The global financial crisis took its toll on China's job market as thousands of labour-intensive factories in the export sector closed down or cut jobs. China's urban registered unemployment rate increased from 4 per cent in 2007 to 4.3 per cent in 2009. The urban registered unemployment rate does not include the 230 million jobless migrant workers from rural areas in China, the major labour force in coastal regions.

## 2. Impact on government revenue and expenditure

### 2.1 Slowdown in revenue growth

The slowdown of China's economy led to the decline of business profits as well as the taxes they paid. The growth rate of taxes fell from 31.08 per cent in 2007 to 18.85 per cent in 2008. At the end of 2008, the Chinese government initiated a set of policies to stimulate the economy, including tax cuts. This led to a further decrease in the growth rate of taxes, which was 9.77 per cent in 2009. Taxes account for about 90 per cent of all revenue of the Chinese government. The revenue had been maintaining a double-digit growth rate since 1992, with growth rates of 22.5 per cent in 2006 and 32.4 per cent in 2007. As a result of the tax cuts, the growth rate of revenue dropped steeply, falling to 19.5 per cent in 2008 and then to 11.7 per cent in 2009.

**Figure 7: Growth rate of revenue, 2003-2009**



**Source:** National Bureau of Statistics, China Statistical Abstract, 2010

### 2.2 Increase in the deficit

The economic crisis led to a dramatic increase in the deficit. The deficit of 2009 was nearly six times the size of that of 2008, and it continued to increase in 2010. The revenue and expenditure in China between 2006 and 2010 are shown in the table below.

**Table 1: Revenue and expenditure in China (CNY; billions)**

	2006	2007	2008	2009	2010
Financial revenue	3876	5132	6133	6848	8308
Public expenditure	4042	4978	6259	7587	8960
Deficit	166	-154	126	740	652

**Source:** National Bureau of Statistics, China Statistical Abstract, 2010 Ministry of Finance of China

### 2.3 Economic stimulus package

On 9 November 2008, the Chinese government announced a 4 trillion CNY (586 billion USD) stimulus package in response to the global financial crisis. The stimulus package was invested in key areas such as housing, rural infrastructure, transportation, health, education, social security, affordable housing, environmental protection, industry support, disaster recovery and tax cuts.

The central bank cut interest rates five times in 2008. By the end of 2008, the one-year deposit rate had dropped to 2.25 per cent. This measure increased money supply in the market and expanded investment and consumption.

## 3. Impact on higher education

### 3.1 Education system in China

In China, the education sector is divided into four categories: basic education, vocational secondary education, higher education and adult education. Basic education includes pre-school, primary and regular secondary education. Secondary education is further divided into junior secondary and senior secondary education.

In China it is compulsory to attend school for nine years: primary education for six years and junior secondary education for three years. After completing junior secondary school, graduates wishing to continue their education take an entrance exam, and on the basis of the results they either continue their education in a high school or enter a vocational secondary school.

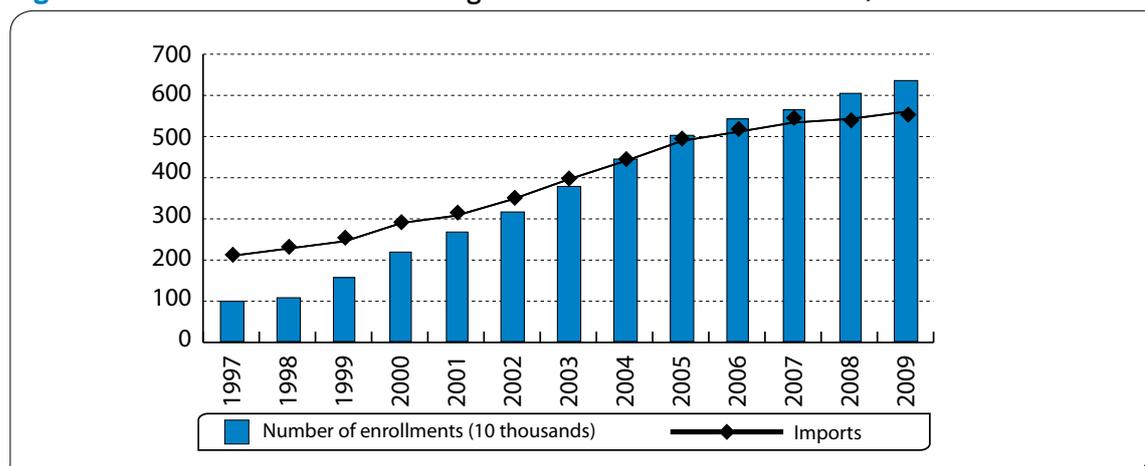
Vocational secondary education in China includes technical education, vocational senior secondary education, regular specialized secondary education, and adult specialized secondary education.

Higher education refers to college, undergraduate, graduate and other higher educational levels of education. College education lasts for between two and three years. Undergraduate education usually lasts for four years, except for majors such as medicine. Postgraduate education lasts for between two and four years. Adult education overlaps all three of the other categories.

### 3.2 Expansion of higher education

Higher education in China has expanded rapidly since 1999. In 2002 the higher education enrolment rate was 15 per cent and by 2009 the rate had risen to 24.2 per cent.

**Figure 8: Enrolment numbers and higher education enrolment rates, 1997-2009**



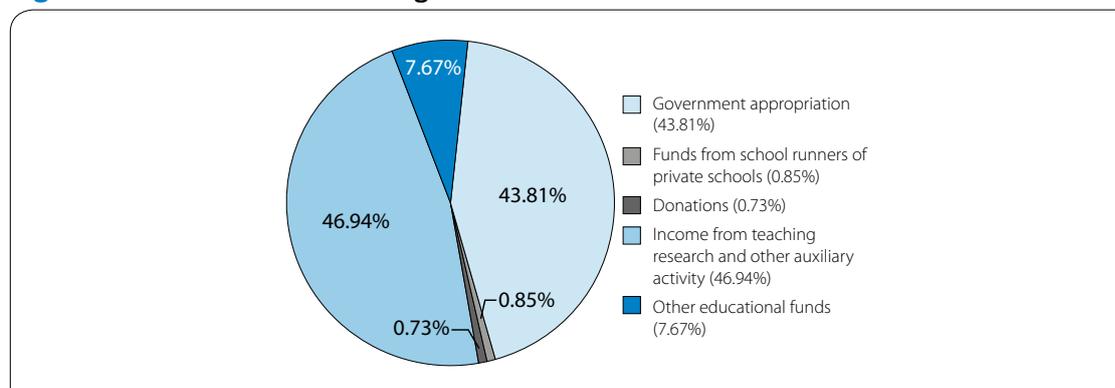
**Source:** National Bureau of Statistics, China Statistical Yearbook, 2010

The number of graduates reached 6.11 million in 2009, an increase of 520,000 from the previous year. In comparison with other countries, China's higher education enrolment rate is lower than the average. In 2006, the higher education enrolment rate in China was 22 per cent, which was 5.2 percentage points lower than the average rate in developing countries and 44.8 percentage points lower than the average rate in developed countries.

### 3.3 Financing of higher education

In China, funds for education are derived from various sources, including government allocations, donations and income from teaching, research and other activities. As shown in the figure below, government allocations and income from teaching, research and other activities are the two main sources of higher education funds.

**Figure 9: Sources of funds for higher education, 2007**



**Source:** National Bureau of Statistics

Between 1999 and 2007, the growth rate of government allocations for education was above 10 per cent. In 2006 and 2007, the growth rates were particularly high, at 23 per cent in 2006 and 30.4 per cent in 2007. As shown in the table below, government allocation for education as a percentage of GDP has increased significantly since 1995.

**Table 2: Public expenditure on education as percentage of GDP, 1995-2008**

	Total (100 million CNY)	Government allocations for education (100 million CNY)	Budget (100 million CNY)	Government allocations for education as percentage of GDP (%)	Budget/GDP (%)
1995	1878	1412	1028	2.32	1.69
1996	2262	1672	1212	2.35	1.70
1997	2532	1863	1358	2.36	1.72
1998	2949	2032	1566	2.41	1.85
1999	3349	2287	1816	2.55	2.02
2000	3849	2563	2086	2.58	2.10
2001	4638	3057	2582	2.79	2.35
2002	5480	3491	3114	2.90	2.59
2003	6208	3851	3454	2.84	2.54
2004	7243	4466	4028	2.79	2.52
2005	8419	5161	4666	2.82	2.55
2006	9815	6348	5796	3.00	2.73
2007	12148	8280	7655	3.22	2.98
2008	14501	10450	9686	3.48	3.22

**Source:** National Bureau of Statistics, China Statistical Yearbook, 2010

In spite of the high growth rate of government allocations for education, in China this sector lacks funding compared to other countries. Regression analysis of countries comparable with China in terms of economic development showed that in 2005 government allocations for higher education accounted for 0.7 per cent of GDP in those countries on average, compared to 0.62 per cent in China. And while funds from government sources accounted for 61.6 per cent of the funding for higher education in the comparable countries, in China it was only 45 per cent.

### 3.4 Impact on funds for higher education

Government allocations for education increased significantly between 2003 and 2007, rising from 385 billion CNY in 2003 to 828 billion CNY in 2007. The corresponding growth rate also increased considerably, from 10.3 per cent in 2003 to 30.4 per cent in 2007. In 2008, the government allocation for education increased, but the corresponding growth rate dropped to 26.2 per cent, 4.2 per cent points lower than that of the previous year.

The economic crisis led to a reduction in endowments to higher education institutions, and delays in some promised donations. At Peking University (PKU), for example, in 2009 endowments shrank significantly compared with the previous two years, and several donors who had signed endowment contracts with PKU had to delay the delivery.

The economic crisis also affected the market value of the universities' endowment funds. Due to the collapse of the Chinese stock market, it was difficult for university endowment funds to outperform relevant market indexes. Some suffered declines.

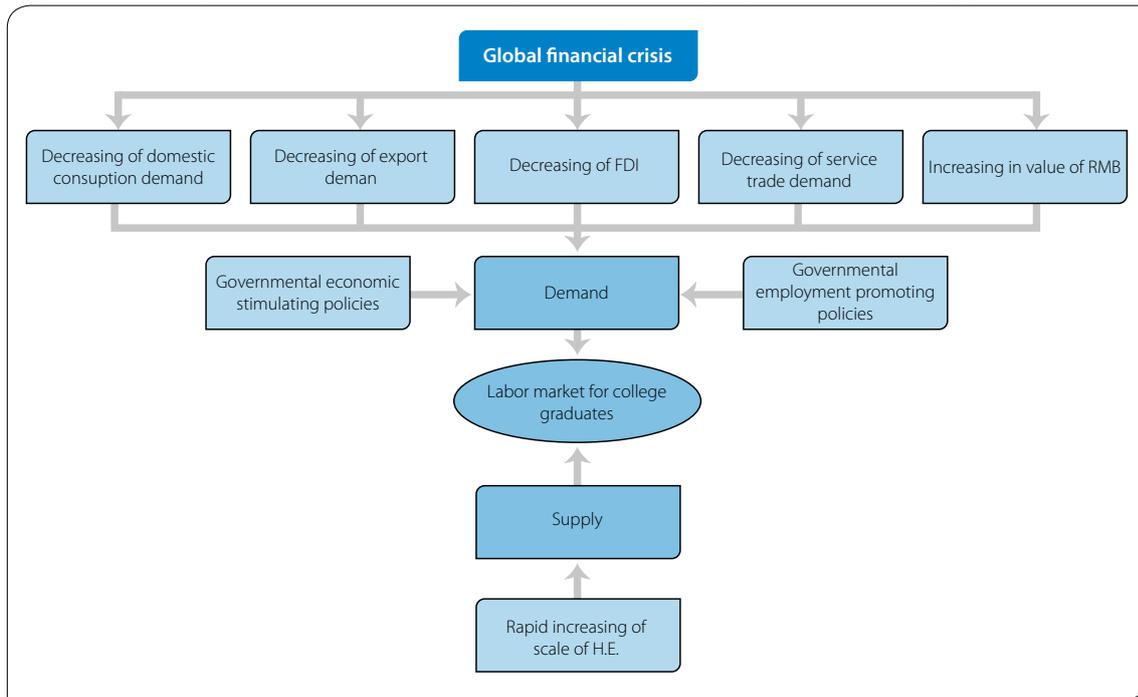
In addition, because of the economic downturn, it was not possible to increase tuition fees. Furthermore, it was not possible to increase the scale of enrolment significantly. Both of these factors contributed to the difficulty faced by Chinese universities and colleges in increasing tuition revenue.

### 3.5. Impact on employment of college graduates

The financial crisis of 2008 exerted profound impacts on economy and employment in China and aggravated the already serious problems in the job market for Chinese college graduates. As a result of the crisis, the economy's growth rate slowed down. This was in response to lower domestic demand, exports, international trade and foreign direct investment, as well as the appreciation of Chinese currency. Subsequently, demand for labour decreased in manufacturing and export-oriented entities, and also in the service sector, reducing employment opportunities for college graduates. At the same time, the number of college graduates in China had been growing rapidly because of growing enrolment in higher education institutions since the late 1990s. Statistics show that the number of college graduates reached 6.10 million in 2009 and over 8 million college graduates, including those who did not find employment in previous years, competed for employment opportunities that year.

In order to narrow the gap between supply and demand in the labour market, the government initiated policies to stimulate economic growth and expand employment.

**Figure 10: Analysis framework of the impact on the employment of college graduates**



On 19 January 2009, the State Council General Office issued a circular on supporting employment of college graduates. In response to the circular, various measures were adopted including encouraging graduates to engage in entrepreneurship, encouraging organizations to actively hire graduates, and providing greater assistance in finding jobs for college graduates who are in a vulnerable situation. The measures achieved remarkable results. By the end of 2009 the employment rate of college graduates was 87.4 per cent, 5 per cent higher than in 2008.

Thus, although the national employment situation was affected by the global financial crisis, the employment rate of college graduates was not adversely impacted, because of the implementation of appropriate and prompt policies.

The Peking University Graduate School of Education and Institute of Economics of Education conducted four large-scale surveys of graduating college students in June of 2003, 2005, 2007 and 2009. The findings of these surveys are discussed below.

The surveys of graduating students found that the initial employment rate<sup>1</sup> started at 59.8 per cent in 2003, increased to 69.9 per cent in 2005 and then to 71.1 per cent in 2007, but declined to 67.1 per cent in 2009.

The proportion of college graduates who “have already signed labour contracts” when they graduate is generally between 40 per cent and 50 per cent, reported as 40.7 per cent, 47.2 per cent and 40.4 per cent in 2003, 2005 and 2007 respectively. In 2009, this rate dropped to 34.5 per cent.

<sup>1</sup> The initial employment rate is defined as the percentage of those, among all college graduates, who have already signed labour contracts, have confirmed employers, will start up their own enterprises, attend graduate schools, or work or study abroad. Note: This definition is different from the one in labour economics.

**Table 3: Employment status of graduates (%)**

Code	Status when surveyed	2009	2007	2005	2003
1	Have already signed labour contracts	34.5	40.4	33.7	31.9
2	Have confirmed employers			13.5	8.8
3	Refuse any job offers	26.4	22.6	5.0	2.9
4	Waiting for interview results			4.1	5.6
5	No job offering			13.3	27.3
6	Will start up their own enterprises	5.7	13.9	3.6	4.0
7	Admission to graduate waived of entrance exams	18.3	14.1	4.8	15.1
8	Admission to graduate passing entrance exams			12.0	
9	Going abroad	3.2	2.7	2.3	
10	Not applying for jobs	2.2	5.3	4.8	1.7
11	Other status	1.2	1.1	3.0	2.7

The surveys found that students with higher degree levels tend to have better employment status, reflecting the preference among employers for graduates with high level degrees. But in 2009 a significant downward trend was observed in the initial employment rate across all degree levels. The decline rate of initial employment for graduates with master's degrees was 15.2 per cent, the highest among all graduates. The rates for graduates with doctorate degrees, higher vocational and junior college degrees and bachelor degrees were 12 per cent, 4 per cent and 2.4 per cent.

**Table 4: Initial placement rate by level of degree (%)**

	2003	2005	2007	2009
College	33.8	56.5	70.3	66.3
Bachelor's degree	75.7	72.1	69.6	67.2
Master's degree	89.1	82.5	82.8	67.6
Doctorate	74.6	77.2	85.8	73.8

The results of the surveys indicate that the starting salary tends to increase as the level of academic degree rises. In 2009, there was a sharp increase in salary levels. The starting salary for graduates with junior college degree was 1,510 CNY, while those with bachelor's degree earned 2,276 CNY, those with master's degree earned 3,637 CNY and those with doctorate degree earned 3,757 CNY.

One of the reasons for a steep increase in 2009 was the major change in the employment structure of work units. The proportion of employment in state-owned enterprises, public institutions and government agencies where average income is relatively higher, increased significantly.

**Table 5: Starting salary by level degree (CNY)**

	2003	2005	2007	2009
College	1356	1413	1410	1510
Bachelor's degree	1502	1618	1788	2276
Master's degree	3009	2790	3469	3637
Doctorate	3021	3035	3252	3757
Average	1569	1659	1798	2331

The results of the surveys indicate that there are significantly higher numbers of employment opportunities for males than for females. Furthermore, starting salaries for male graduates are significantly higher than for females. This gender difference is particularly strong in the fields of science, engineering, agriculture and medicine. In 2009, initial employment rates were 71.7 per cent for male graduates and 61.7 per cent for female graduates. Starting salaries were 2,459 CNY for males and 2,144 CNY for females, on average.

The main work units for college graduates are government agencies, schools, state-owned enterprises, foreign-funded enterprises and private enterprises. Before 2007, employment expanded fastest in private enterprises among all work units, from a proportion of 10.7 per cent in 2003 to 16.3 per cent in 2005, and then to 34.2 per cent in 2007. Therefore, private enterprises became the main employers for college graduates. In 2009, however, the employment proportion of private enterprises dropped to 31 per cent, and this employer was then ranked just below state-owned enterprises.

Among all work units, employment declined fastest in schools, from 23.1 per cent in 2003 to 19.3 per cent in 2005 and 5.4 per cent in 2007, but bounced back to 6 per cent in 2009. Employment in state-owned enterprises dropped from 34.5 per cent in 2003, to 29.7 per cent in 2005 and to 23.5 per cent in 2007, but increased to 34.5 per cent in 2009, when it ranked top among all work units. Foreign-funded enterprises are also one of the main employers of college graduates, employing up to 9.5 per cent of graduates in recent years.

**Table 6: Employment proportion by sector (%)**

Sector	2003	2005	2007	2009
Government Agencies	12.4	9.2	12.7	10.9
Schools	23.1	19.3	5.4	6.0
Research Institutions	4.1	4.7	1.1	1.7
State Owned Enterprises	34.5	29.7	23.5	34.5
Foreign-Funded Enterprises	8.3	9.5	9.5	6.8
Private Enterprises	10.7	16.3	34.2	31.0
Collective Enterprises	1.0	2.1	1.2	0.8
Other Sectors	5.9	9.2	12.2	2.3

As a result of the crisis, employment in state-owned enterprises increased but it dropped in foreign-funded and private enterprises. This was because the government created more positions in state-owned enterprises, raising the employment proportion. And at the same time, there was a decline in the number of positions in foreign-funded and private enterprises.

In spite of the government's policies to encourage college graduates to migrate to western areas, graduates tend to remain where they studied, particularly in the east. College graduates are not motivated to work in less developed areas and in some occupations. According to the findings of the Student Source Surveys conducted by the Ministry of Education in 2008, students tend to remain and work in the same place after they graduate. On average, 82.3 per cent of college graduates remained to work where they graduated. In Beijing, Tianjin and Shanghai area, 95.3 per cent of students remained there to work, followed by 89 per cent in eastern China (not including Beijing, Tianjin and Shanghai), 76.7 per cent in western China and 75.6 per cent in central China.

In terms of migration, eastern China (including Beijing, Tianjin and Shanghai) is the most attractive place for college graduates. The Beijing and Tianjin region has the highest ratio of graduate inflow to outflow. Central China is the region with the greatest outflow of college graduates and the lowest ratio of inflow to outflow. In western China, the ratio of inflow to outflow is slightly higher than central China.

Although eastern China is the ideal location for college graduates, there was a downward trend of inflow of graduates to eastern China from central and western China between 2004 and 2008. Meanwhile, the outflow from eastern China to central and western regions was rising. The main reasons for this trend were changes in employment policies and development strategies, and labour market saturation in eastern China.

## 3.6. Government responses to the crisis with regard to higher education

### Economic stimulus package

Part of the economic stimulus package announced on 9 November 2008 went to education. But the investments planned for “social undertakings”, including education, health care and culture accounted for merely 4 per cent of the package, so the amount allocated for education was only a small fraction of the total. Investments in education were mainly for basic education, with very little given to higher education.

### National education reform and development plan

The State Council of China approved the final version of the medium and long-term “National education reform and development plan (2010-2020)” on 6 May 2010. According to the plan, the development of education in rural areas, for all levels, ranging from pre-school education to vocational education, will be a priority.

The government will steadily increase investment in support of the education sector, with the ratio of government education expenditure in terms of GDP expected to be 4 per cent by 2012. In 2008 the ratio stood at 3.48 per cent; lower than the global average of 4.5 per cent.

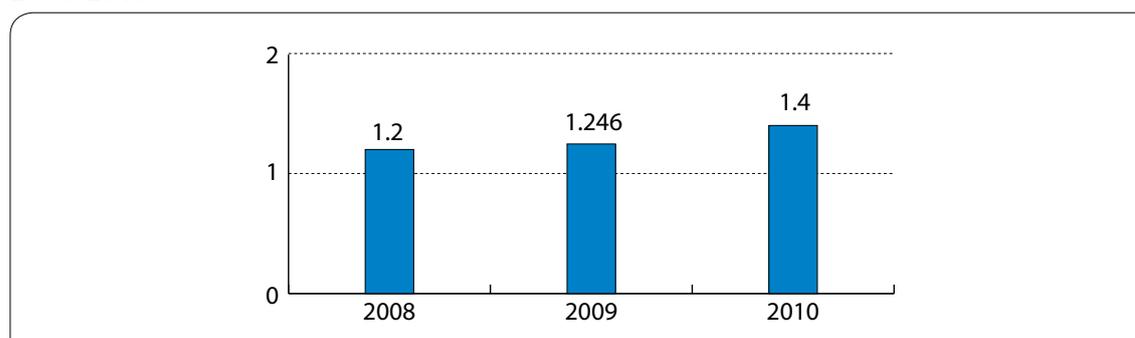
### Policy to encourage more private investment in education

In October 2009, the Ministry of Finance of China issued a policy to encourage individuals and organizations to donate to institutions of higher education, through offering matching funds for private donations to universities. At Peking University, for example, the government allocation only covers one third of the expenses, so the university has to raise money from other sources. In 2009, the PKU Education Foundation received 380 million CNY in donations. Supported by the matching funds, Peking University received another 140 million CNY from the Ministry of Education.

### Expansion of graduate education

The demand for higher education increases as the pressure of finding employment grows. This can be seen from the increase in the number of students who register to take part in the entrance exam for graduate education. In response to the lack of jobs, applicants for master degree studies increased from 1.2 million in 2008 to 1.246 million in 2009. And in 2010, 1.4 million candidates took part in the national post-graduate entrance examination, an increase of 13 per cent from 2009.

**Figure 11:** Number of students taking part in the entrance exam for graduate education, 2008-2010



Source: Ministry of Education

Between 1978 and 2008, the number of Chinese students studying abroad totalled 1.417 million, including 1.0832 million between 2000 and 2008. The number of applications for studying abroad increased in response to the crisis. According to the Ministry of Education, the number of applications for studying abroad increased to 179,800 in 2008, and 90 per cent of students went abroad at their own expense.

## 4. Conclusion

The global financial crisis was both a challenge and an opportunity for China. Although the crisis affected China's exports, employment, fiscal revenue and higher education, it is also generated pressure for China to implement structural adjustments, thus providing an opportunity to change the education development strategy.

The implementation of China's medium and long-term national education reform and development plan (2010-2020) is vital for the country's education modernization drive. According to the plan, China will make education a strategic priority. Governments at all levels are expected to guarantee capital and public resources for education so that by 2020 China will achieve education modernization. As for higher education, public investment will increase in the future, but China still faces the serious challenge of ensuring high quality of, and equity in access to, higher education.

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# Hong Kong SAR, China

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# 1. Impact on Hong Kong's economy and society

Hong Kong is a Special Administrative Region within the People's Republic of China. It is an independent jurisdiction with a population of seven million people. Hong Kong has its own system of governance (apart from military and diplomatic affairs) and Hong Kong's finance and education systems are both independent.

The Gross Domestic Product (GDP) per capita for Hong Kong is above 42,000 United States dollars (USD) and, according to most estimates, is among the world's top ten.<sup>2</sup> The three major contributors to GDP growth are the financial and investment sector, the service industry and the real estate sector. The economic indicators of the past decade point to a steady rise in the wholesale, retail and import and export trades, restaurants and hotels, transportation, storage, communication, financing insurance, real estate and business services. Moreover, there has been an increase in the volume of community, social and personal services. The service sector contributes to 92 per cent of Hong Kong's economic growth.

The city is often named as the third largest financial centre in the world, comparable to London and New York. It operates as a globally-integrated economy, which is highly sensitive to the rise and fall of financial markets. Indeed, the fluctuation of the Hang Seng Index was significant between 2007 and 2010. The Index fell over 30,000 trading points in October 2007, then down to less than 20,000 points a year later, reaching a low of 10,676 on 27 October 2008. Contributing to the downturn were failures among manufacturing operations across the border in southern China, which were mostly Hong Kong investments. The Hang Seng eventually regained its strength, however, rising over 20,000 points in October 2009.

Between 2008 and 2009, the unemployment rate grew from 3.6 per cent to 5.3 per cent, and the underemployment rate grew from 1.9 per cent to 2.4 per cent. This was largely due to the declines in the manufacturing sector. The Hong Kong GDP declined by 3.8 per cent between the second quarter of 2008 and the first quarter of 2009, but a rise of 3.3 per cent was noted between the first and second quarters of 2009.

During 2009 the economy made a general recovery and appeared to be regaining its vitality in 2010. Apart from some slight fluctuations, the effects of the global financial crisis had mostly dissipated in Hong Kong by mid-2010. The rapid recovery and stability of the financial situation in Hong Kong was very much affected by the minor impact of the crisis on the Chinese mainland, which is a major economic partner for Hong Kong.

## 2. Impact on government revenue and expenditure

In response to the 2008 global financial crisis, the Hong Kong government rapidly adjusted its budgetary arrangements for 2009/10. A sizable reserve allowed the government to be bold in maintaining almost all of its public commitments during the crisis.

Although the financial markets fluctuated more frequently and with greater amplitude between late 2008 and 2010, which reflected changes in the global markets, the Hong Kong government's income from financial transactions remained sound. This was due in large part to the participation of Chinese mainland enterprises. Hong Kong's foreign currency reserve assets grew from 182 trillion Hong Kong dollars (HKD) to 206 trillion HKD between 2008 and the second quarter of 2009, and the M3<sup>3</sup> money supply increased by 9.6 per cent during this period.<sup>4</sup>

<sup>2</sup> International Monetary Fund: USD 42,748 (7th); World Bank: USD 43,957 (4th)

<sup>3</sup> Commercial bank money is divided up into three components: M1-M3. Generally, the M3 category has the largest amounts.

<sup>4</sup> Census and Statistics Department of Hong Kong. 2009b. Economic Background and Prospects. [http://www.censtatd.gov.hk/freedownload.jsp?file=publication/econ\\_analysis/B6XX00042009AN09E0100.pdf&title=Economic+Background+and+Prospects&issue=2009+Edition&lang=1&c=1](http://www.censtatd.gov.hk/freedownload.jsp?file=publication/econ_analysis/B6XX00042009AN09E0100.pdf&title=Economic+Background+and+Prospects&issue=2009+Edition&lang=1&c=1) (Accessed 26 June 2010).

The real estate sector was not significantly affected by the global crisis. Demand for private leases and tenancy increased and the gross value of construction work maintained steady growth between 2007 and 2010. In 2009 there was a slight fluctuation in the employment indices in the sector but the demand for construction work and private domestic property prices both continued to rise, and the sector saw an increase in the number of registrations of agreements for sale and purchases of building units and land.<sup>5</sup> Income from real estate transactions remained strong because there was little fluctuation in the private domestic market. Prices at the high end of the real estate market continued to increase, although the pace of the escalation slowed down. Overall, the real estate market remained a major source of income for the Hong Kong government.

After an initial drop, there was a general increase in Hong Kong's public income in 2009. The government was able to restore the city's financial health by the latter half of 2009, and the caution reflected in the budget for the fiscal year 2009/2010 soon seemed to be overly prudent.

**Table 1: Total public expenditure, 2005-2010 (HKD; millions)**

Currency	Financial year ending in:								
	2005-2006		2006-2007		2007-2008		2009		2010
	Allocated	Actual	Allocated	Actual	Allocated	Actual	Allocated	Actual	Proposed
Total public expenditure	268,590	233,071	264,889	229,413	267,845	234,815	332,082	315,112	319,359
Recurrent expenditure	225,191	187,162	226,026	189,498	230,998	199,446	239,299	214,119	254,913
Capital expenditure	43,399	45,909	38,863	39,915	36,847	35,369	92,783	100,993	64,446

**Notes:**

- 1) Allocated indicators are based on budget estimates of various years;
- 2) Actual indicators have been derived from 2009 HK Annual Digest of Statistics, ch 10.4, p. 271/483;
- 3) Recurrent expenditure = Personal emoluments + Personal related expenses + Pensions + Departmental expenses + Other charges + Subvention; and
- 4) Capital Expenditure = Non-Recurrent + Capital + Capital Works Reserve Fund.

**Source:** Census and Statistics Department 2009, Annual Digest of Statistics 2009; The Budget documents, 2005/06 to 2009/10

Hong Kong's public expenditure did not decline, as would be expected in times of financial crisis. Indeed, the budget for 2010/11 included generous allocations for several items, particularly in the realm of infrastructure. This spending was partly intended to further engage Hong Kong in the overall development taking place in China, and partly prompted by a public outcry to address social inequity.

Overall, Hong Kong's public expenditure grew by 32 per cent between 2007/08 and 2008/09. Massive increases were made in spending on community and external affairs (up by 370 per cent) as well as on education (up by 41 per cent) during this period (See table 2 below).

5 Census and Statistics Department of Hong Kong. 2009a. Hong Kong Annual Digest of Statistics. [http://www.censtatd.gov.hk/freedownload.jsp?file=publication/general\\_stat\\_digest/B10100032009AN09B0700.pdf&title=Hong+Kong+Annual+Digest+of+Statistics&issue=2009+Edition&lang=1&c=1](http://www.censtatd.gov.hk/freedownload.jsp?file=publication/general_stat_digest/B10100032009AN09B0700.pdf&title=Hong+Kong+Annual+Digest+of+Statistics&issue=2009+Edition&lang=1&c=1) (Accessed 20 June 2010)

**Table 2: Public expenditure by policy area group (HKD; millions)**

Item	1998/99	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09
Community and external affairs	8,821	8,089	7,764	7,794	8,026	8,210	38,613
Economic	21,050	13,802	12,663	12,537	12,724	13,463	25,315
Education	49,214	57,291	54,451	54,265	51,934	53,825	75,935
Environment and food	13,381	10,892	10,194	9,681	10,188	12,051	12,384
Health	31,366	34,201	32,199	31,616	32,127	33,623	36,848
Housing	38,131	24,834	17,961	15,405	14,671	14,336	18,300
Infrastructure	25,911	29,703	30,923	26,968	23,545	22,715	24,844
Security	25,115	26,616	25,541	24,792	25,122	27,985	28,200
Social welfare	25,956	33,333	33,285	33,262	33,540	34,868	40,255
Support	27,503	32,337	32,156	28,662	29,867	31,319	33,908
Total	266,448	271,098	257,137	244,982	241,744	252,395	334,602

**Source:** Financial Services and the Treasury Bureau of HK, 2009 (as cited in CSD 2009)

### 3. Impact on higher education

Hong Kong is in the process of transforming its education system from a British system to a structure that is aligned with other systems in the region. Hong Kong used to have a system of 6+5+2 for primary, secondary, and pre-university programmes, leading to university programmes which were normally three years in duration. This is being transformed to a system of 6+3+3 for primary, junior secondary and senior secondary, followed by a four year university programme. The changes also include an overhaul of the school curriculum.

Reforms in senior secondary schools began in 2009, and those in university admissions will start in 2012. Proposed changes include the removal of scrutiny for the A-Level examinations, likely leading to a significant expansion of the secondary school population. There is expected to be a “bulge” in the higher education student population because of the dual intake from both the old and the new secondary school systems. The anticipated “double cohort” has led to an expansion of infrastructure in all public higher education institutions in Hong Kong. Correspondingly, there has been a sizable increase in education expenditure. This has been accompanied by a recruitment campaign aimed at expanding the academic community in Hong Kong by an additional 2,000 members.<sup>6</sup>

The Hong Kong government has continued moving toward its education reform objectives despite the threat of recession caused by the global financial crisis. Even in its prudent budget of early 2009, when the financial crisis was at its peak, the government showed determination to maintain all its ongoing commitments. Education is viewed as a vehicle for mitigating the outflow of labour in the markets and creating opportunities for up-skilling or re-skilling of the workforce. In addition to its ongoing commitment to restructure the economy from low-tech to high-tech, the government has invested in research and development (R&D) at Hong Kong research institutions, and has provided land grants and loan support to the growing post-secondary education sector.

Although the academic sector has remained a key recipient of Hong Kong R&D funding for natural sciences and engineering over the last decade, businesses have outpaced universities in the overall rate of current and capital R&D expenditure over the same period of time.<sup>7</sup> Overall, business sector R&D expenditures grew by 141 per cent, while academic spending on R&D grew by only 26 per cent over the last decade. The number of researchers in the business sector increased from 3,142 in

<sup>6</sup> Hvistendahl, M. 2009. They're Hiring in Hong Kong. *The Chronicle of Higher Education*, Vol. 55, No. 30.

<sup>7</sup> Census and Statistics Department of Hong Kong. 2009b. *Economic Background and Prospects*. [http://www.censtatd.gov.hk/freedownload.jsp?file=publication/econ\\_analysis/B6XX00042009AN09E0100.pdf&title=Economic+Background+and+Prospects&issue=2009+Edition&lang=1&c=1](http://www.censtatd.gov.hk/freedownload.jsp?file=publication/econ_analysis/B6XX00042009AN09E0100.pdf&title=Economic+Background+and+Prospects&issue=2009+Edition&lang=1&c=1) (Accessed 26 June 2010).

2002 to 9,106 in 2007, while the number of academic researchers rose at a more modest rate, from 7,285 to 9,775. Moreover, the number of R&D technicians in the corporate sector grew from 1,023 to 2,116 and support staff grew from 395 to 1,151, while in the academic sector these categories of R&D personnel have declined or showed marginal growth (i.e. from 412 to 408 for technicians, and 272 to 310 for support staff).

The expansion of the role of the private sector has been a key feature in the transformation of the Hong Kong higher education system. The system consists of 12 UGC-funded higher education institutions and 21 self-financing post-secondary institutions. The proliferation of self-financing colleges, the establishment of new private universities and the intensified solicitation of funds from private donors have been on the rise during the last decade.

The government has placed significant emphasis on making the education industry one of its six strategic export pillars. Higher education is viewed as the core of the regional education hub and a key driver of enhanced regional competitiveness. At the time of the 2008 financial crisis, the government encouraged linkages between university research and business interests by investing more than 18 billion HKD<sup>8</sup> into an endowment fund supporting bids for strategic themes jointly assessed by the Research Grants Council, international scholars, and local business leaders. With an annual interest rate of 5 per cent, the fund is said to generate resources for strategic research at a scale exceeding the current level of expenditures on university-based research. Some observers argue that this will set a new benchmark for academic research agendas and investment goals in Hong Kong. The establishment of the fund offered a response to continuous complaints from academics that the subsidies available for academic research are extremely low vis-à-vis Hong Kong's high GDP, and that mainland China is outstripping Hong Kong by raising its level of research funding significantly.

In addition to encouraging a more intensive public-private connection in higher education, the Hong Kong government also encouraged more proactive outreach by local higher education institutions to mainland China and the East Asian region. Exchanges, internships and other mobility programmes were put in place to increase the number of Hong Kong students travelling to Greater China. A number of Hong Kong universities have followed up with bold initiatives, such as opening satellite campuses and enterprises on the mainland. In addition, traditional recruitment campaigns aimed at the best students from across the border have taken on new and more aggressive forms. Thus, Hong Kong is proactively shaping the so-called "intra-nationalization" process.

This endeavour was complemented by a long-term commitment to the internationalization of education and research in Hong Kong. Academic ties with Western Europe and North America are particularly vibrant and are paralleled by enhanced trade with these parts of the world. In 2009, the Research Grants Council of the Hong Kong University Grants Committee introduced a new PhD fellowship scheme, allowing 135 graduates of the world's top universities to pursue their doctoral studies in Hong Kong. Seven Hong Kong research universities participated in the first round. In 2009 the government expanded the Scholarship Fund to include 20 more fellowship places, in order to approach the target of 20 per cent non-local students in Hong Kong universities.

The increased financial commitment to the higher education sector will see significant outcomes in the years to come. The government has made a long term financial commitment to the transition from a three-year undergraduate education structure to a four-year structure, which is to be completed in 2016. The government began a gradual increase in spending in this area to mitigate the threat of rising unit costs for undergraduate studies, and thus to prevent disruptions to the reforms. In spite of the recent financial crisis, the government successfully secured a sum of 2.4 billion HKD in 2010 for the implementation of the restructuring in that year alone.

The government also conveyed a sense of stability by remaining committed to the autonomy of research universities and the triennium budget allocations in higher education. Public higher

<sup>8</sup> 1 USD = 8 HKD, the annual appropriation to the largest university in Hong Kong is around 3 billion.

education institutions in Hong Kong are established by ordinance and hence are autonomous under the legislation. In the absence of a steering central office, funding from the government is allocated to the institutions with the mediation of a University Grants Committee (UGC), which acts as a “buffer” mechanism. It comprises community members, the institutions and academics from around the world. The UGC plays a dual role by reflecting the academic needs of the institutions, in addition to advising the government on its funding policy. The established triennium budgeting cycle seems to be serving the needs of Hong Kong higher education well as it habitually protects universities from financial market fluctuations, policy changes or change of government. This most likely explains the absence of changes in government allocations to higher education during this recent crisis. The 2008-2011 budget commitment was negotiated in 2006 and approved in 2007. Likewise, the negotiation for the triennium of 2011-2014, which started in 2010, took place after the 2008/09 crisis had been largely resolved.

The political aspects of the negotiation process in the budgeting for higher education cannot be ignored. For example, the negotiation process was markedly different during the financial crisis of 1997/98. This earlier crisis resulted in a double reduction of recurrent funding in higher education. There was also a reduction in salaries at universities, which are subsequently pegged to the civil servant salary scale. There was also a 10 per cent drop in the overall allocation for each institution. In the more recent crisis of 2008, there was no reduction of the same kind. Indeed, the latest government announcements point to a marginal increase in the salaries of civil servants to adjust for inflation, and university salaries will follow suit.

The stability of Hong Kong’s financial structure does not wholly explain the new commitments launched in 2009 or 2010. As can be seen in Table 2, the general increases in public expenditure for education have not been consistent over the last decade. The dramatic increase in the recent years signifies a change in the government’s attitude to higher education as a strategic industry. This is partly related to the increasing significance of the knowledge-based economy, which puts more emphasis on the role of services – professional and managerial services in particular. Therefore, it is most likely that, even if the one-off items related to capital construction are discounted, the Hong Kong higher education system will be experiencing a general increase in the per-student recurrent expenditure over the years to come.

Overall, however, these positive trends related the structural stability of higher education in Hong Kong need to be taken with some degree of caution. Despite the signs of general fiscal rehabilitation, there have also been indications that households may be facing difficulties in meeting education-related financial commitments. According to the student Financial Assistance Agency, there has been an increase of students who applied for grants and loans since 2008. Unfortunately, the number of students who can pay back the loans has decreased. But this difficulty in repaying loans could be attributable to longer term causes (e.g. inequitable resource allocation and intergenerational poverty), rather than to immediate economic issues related to the financial crisis.

## 4. Conclusion

As one of the world’s major financial centres, Hong Kong is vulnerable to global financial crises. The 2008 crisis caused major fluctuations in the stock market and adversely affected government income. The sizable reserve in the Hong Kong government’s coffers cushioned the impact, however, and made it possible to maintain government commitments in the fiscal year 2009/10.

Given that the impact of the financial crisis began to subside in mid-2009, the government could afford not only to continue with its long-term commitments to public expenditure, but also to inject resources into new undertakings, either to boost the economy or to soothe social discontent. In this context, education received augmented funding during the crisis period.

At the same time, however, the government intensified measures to encourage private initiatives in the higher education sector, changing the character of academic research financing and R&D support, as well as spurring the proliferation of self-financing post-secondary education institutions. The government also encouraged more proactive outreach by Hong Kong universities to markets in mainland China and East Asia.

Overall, the difference in the impacts of the 1998 and 2008 financial crises on universities was not only defined by the higher education sector's proximity to the epicentres of global market failures, but also by the structural and strategic approaches of the government in managing a combination of public and private interests and resources.

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# Japan

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# 1. Impact on Japan's economy and society

Japan is an island nation situated in East Asia, with an area of approximately 380,000 square kilometres. In April 2009, Japan had a population of approximately 126 million, which declines by about 136,000 per year. The steady decline in Japan's population has caused numerous social problems in recent decades and has also affected Japanese economic recovery from the global financial crisis.

After the Second World War, Japan experienced a period of restoration, followed by high economic growth. In 1967 the Japanese economy had the second largest GDP in the world. Since then, despite shocks such as the oil price rises in the early 1970s and the Asian economic crisis in late 1990s, Japan has maintained a strong economy.

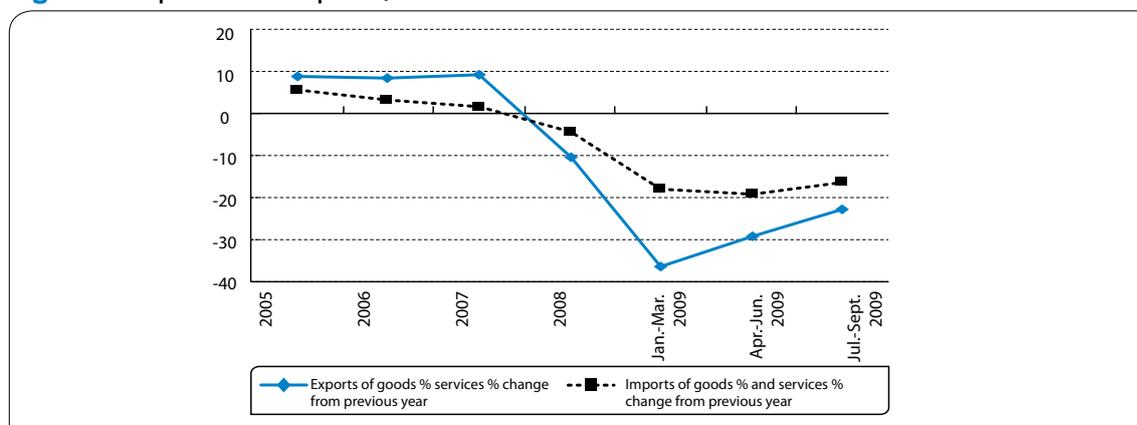
Like many advanced countries, services constitute Japan's largest economic sector, and this sector has been growing since the 1980s. Industry, the second largest sector, has a highly advanced and efficient manufacturing branch that has been the engine of growth for Japan since the 1960s. Agriculture, the smallest sector, is capable of meeting some domestic needs, though most foodstuffs must be imported.

Japan has experienced a recession since 2007, but the global economic crisis resulted in unprecedented lows in the economic and fiscal situation in Japan. As Japan is characterized by an export-led economy, which differs essentially from other advanced economies such as the US and the UK, the global financial crisis impacted more directly and significantly on Japan's economy than on other countries.

According to the White Paper on International Economy and Trade 2009 these impacts were particularly evident in three areas.<sup>9</sup> The first was on the financial aspects of the economy. Since September 2008, there has been a rapid decline in stock prices and a worsening of conditions for issuing corporate bonds. It is estimated that the diffusion index for financial positions and lending attitudes of financial institutions, irrespective of company size, deteriorated, falling close to the level at the end of the 1990s.

The second area affected by the crisis was the real economy. As shown in Figure 1, since 2007 there has been a continuous and sharp decline in both imports and exports of goods. The reduction in exports of goods was due to the decrease in demand from advanced economies such as the US and the UK during the financial crisis. The decline in 2009 was the largest decline in exports of goods since 1980 and has changed Japan's real economy dramatically.

**Figure 1: Imports and exports, 2005-2009**

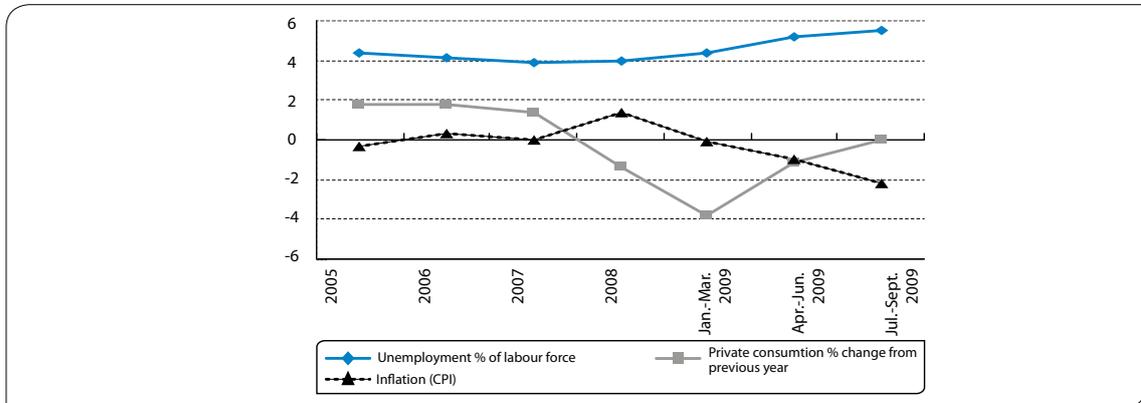


**Source:** Cabinet Office (with modifications)

<sup>9</sup> Ministry of Economy, Trade and Industry (METI). 2009. White Paper on International Economy and Trade 2009, <http://www.meti.go.jp> (accessed on 15 June 2010).

The third affected area was unemployment. As indicated in Figure 2, unemployment rose between 2008 and 2009. At around the same time there was a sharp drop in private consumption and a short-term rise in inflation. Figure 2 illustrates the changes in the unemployment rate, private consumption and inflation between 2005 and 2009.

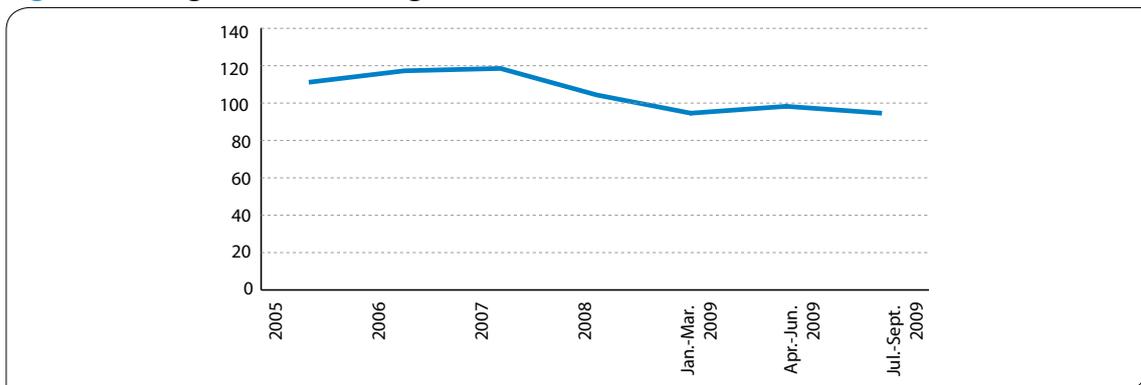
**Figure 2: Unemployment rates, private consumption rates and inflation rates, 2005-2009**



**Source:** Cabinet Office (with modifications)

Figure 3 shows that between 2007 and 2009 there was a gradual drop in the exchange rate between the Japanese yen and the US dollar.

**Figure 3: Changes in the exchange rate, 2005-2009**



**Source:** Cabinet Office (with modifications)

Japan's export-led expansion that began in 2002 ran out of steam in late 2007 in the context of slowing world trade. Given that Japan's economy was vulnerable at the time, the collapse in world trade resulted in Japan's most severe recession of the post-war era.<sup>10</sup> Between September 2008 and February 2009, exports and industrial production each fell by around a third in volume, leading to a rise in unemployment to unprecedented levels by mid-2009. But the turnaround was fast. By the middle of 2009 headline inflation had turned negative and prices were down around 2 per cent year-on-year.

In response to the crisis, with the aim of restoring the economy, the Japanese government adopted three main strategies. First, to increase exports of goods to emerging economy markets, particularly in the Asian economic zone, so as to reduce dependence on the US market, and to expand direct investment to emerging nations; second, to enhance productivity; and third, to increase domestic demand.<sup>11</sup> The Japanese government also developed plans to explore new domestic and foreign markets (market expansion) and build up a strong, new structure that can adapt to change (market maintenance).

<sup>10</sup> Organisation for Economic Cooperation and Development (OECD). 2010. *Economic Outlook No.87*. June. [http://stats.oecd.org/Index.aspx?DataSetCode=EO87\\_FLASHFILE\\_EO87](http://stats.oecd.org/Index.aspx?DataSetCode=EO87_FLASHFILE_EO87) (accessed on 20 July 2010).

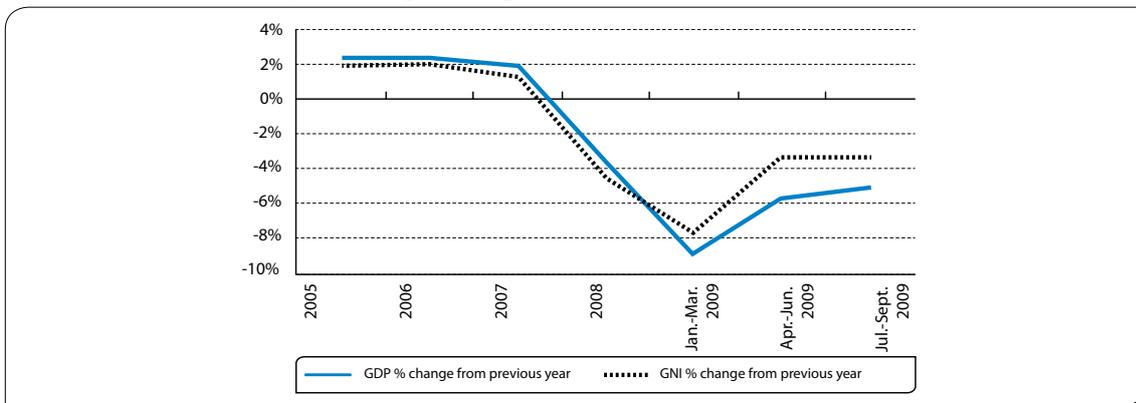
<sup>11</sup> METI, 2009.

The Japanese government began implementing measures such as regulation of protectionism, promotion of development of infrastructure-related industries, promotion of innovations in technology, maintenance of the investment environment by investment-protection treaties and intellectual property protection, and the encouragement of home remittances of profits on foreign investments. Some of these measures are intended to address the immediate impacts of the 2008 global economic crisis, while others are part of a long-term economic development strategy.

## 2. Impact on government revenue and expenditure

As a result of the crisis and the consequent rapid decline of exports of goods, along with stagnant domestic demand and a weak yen, Japan's real GDP growth rate and GNI growth rate dropped sharply between 2007 and early 2009 (Figure 4).

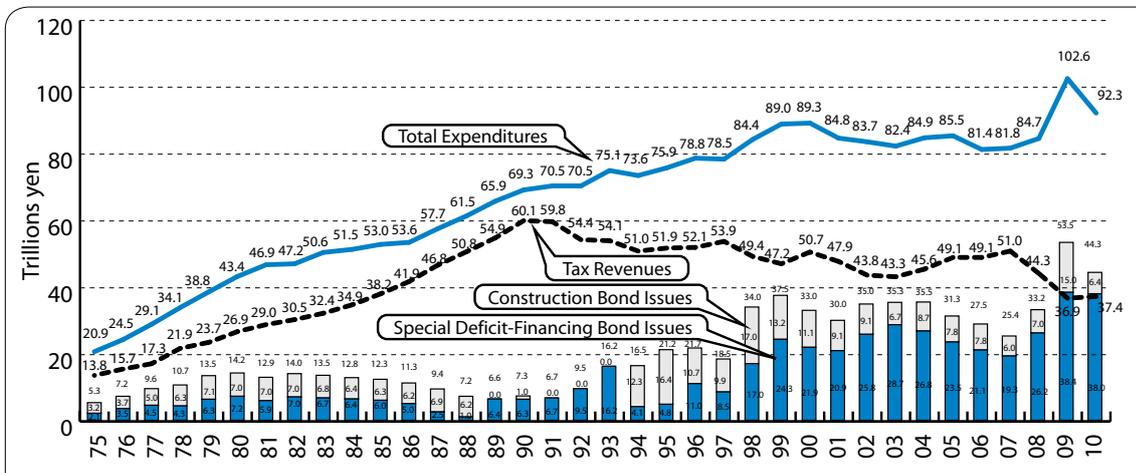
**Figure 4:** GDP and GNI percentage change over time, 2005-2009



**Source:** Cabinet Office (with modifications)

Japan has had budget deficits since the 1970s, with expenditure consistently exceeding revenue. While the gap between revenue and expenditure had been narrowed by the end of 1980s, the collapse of the bubble economy in the early 1990s led to a widening of the gap between the two. The global economic crisis, which led to a speedy decline in tax revenues accompanied by a steep rise in total expenditures, caused the gap to become wider than ever before (Figure 5). In 2009 tax revenues dropped below government bond issues for the first time since FY 1946

**Figure 5:** Trends in general accounts, tax revenues, total expenditures and government bond issues (trillions of yen), 1975-2010



**Source:** Ministry of Finance

### 3. Impact on higher education

In 2009, there were 1,243 higher education institutions in Japan. There are three main types of institutions in the higher education sector in Japan: universities, junior colleges (tanki daigaku) and colleges of technology. As of 2009, 78 per cent of the 18 year-age population were enrolled in post-secondary education institutions, with 56.2 per cent of students at universities, junior colleges or colleges of technology (four year).

A striking characteristic of higher education in Japan is that the private sector constitutes the majority of all institutions, with 78.2 per cent of all institutions being privately run. The private sector tends to be market-oriented, with most students enrolled in social sciences and humanities. The national and public institutions, in contrast, are controlled by the government and the national universities are expected to facilitate the advancement of scientific research and provide higher education opportunities for a wide range of the population.

Private institutions also differ from national institutions in terms of the allocation of public grants, tuition fees and the ratios of faculty members to students. Normally, approximately 70 per cent of public grants for scientific research are allocated to national universities. National and public institutions charge lower tuition fees (Table 1 and Table 2) and tend to have a lower ratio of faculty members to students than private institutions.

**Table 1: Annual revenue of national universities, 2006**

Revenue source	Percentage
Public funding (operating budget, research grants, etc)	43.5
Tuition fees	14.7
Income from university hospitals	27.2
Others	14.6
TOTAL Revenue	100

**Source:** Centre for National University Finance and Management

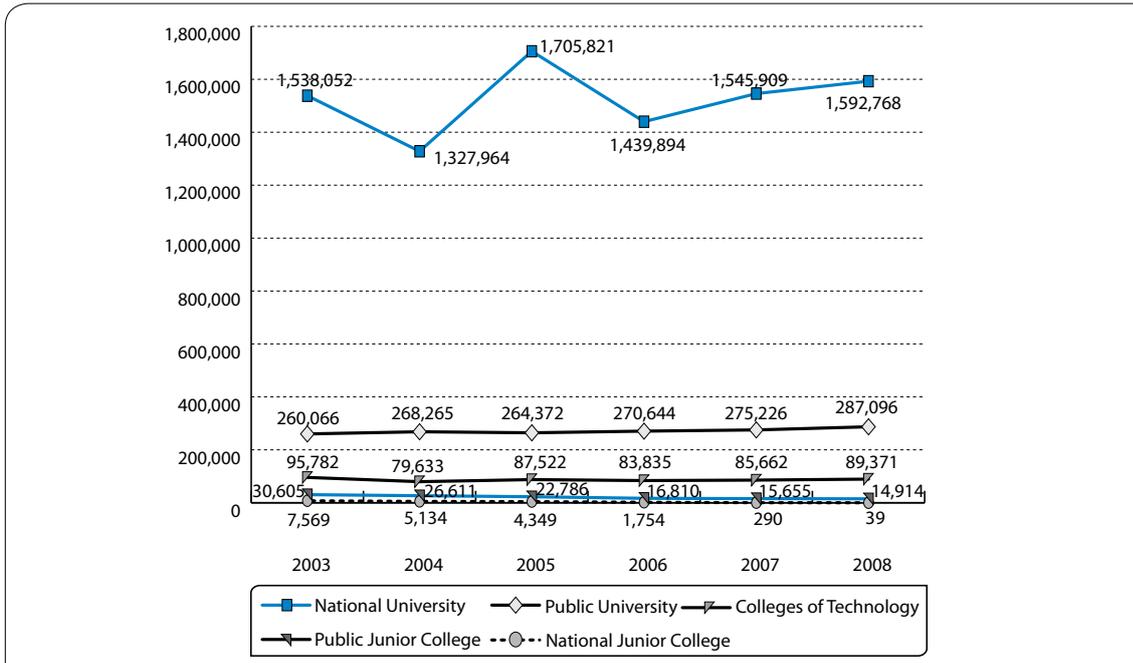
**Table 2: Financing of private universities, 2005**

Revenue source	Percentage
Public funding (operating budget, research grants, etc)	12.3
Tuition fees	60.0
Income from university hospitals & other businesses	24.9
Others	2.9
TOTAL Revenue	100

**Source:** Statistical Research and Training Institute, Ministry of Internal Affairs and Communications

As indicated in Figure 6, since 2006 there has been a gradual increase in funding for national and public universities, but funding has remained fairly stable for junior colleges.

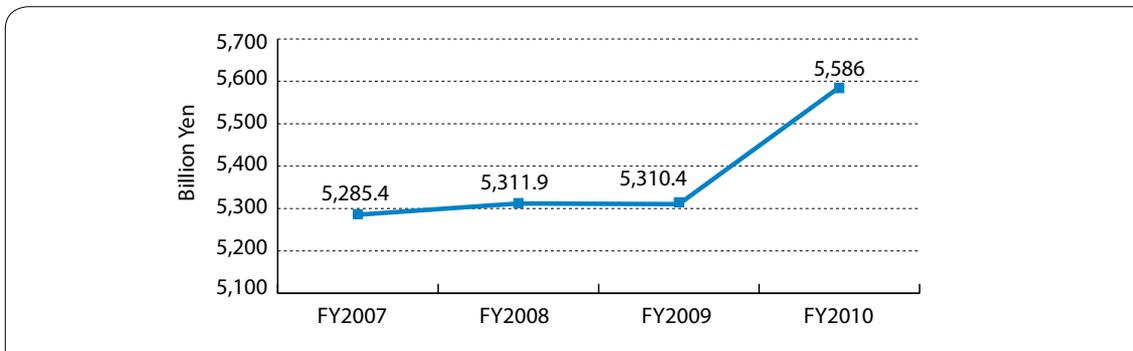
**Figure 6: Funding for national and public institutions, 2003-2008**



**Source:** Ministry of Education, Culture, Sports, Science and Technology (MEXT)

The global financial crisis had a small impact on higher education in several areas. Firstly, as shown in Figure 7, the budget for Education and Science decreased slightly between 2008 and 2009. But when the economy began to recover in 2009, there was a sharp rise in the budget.

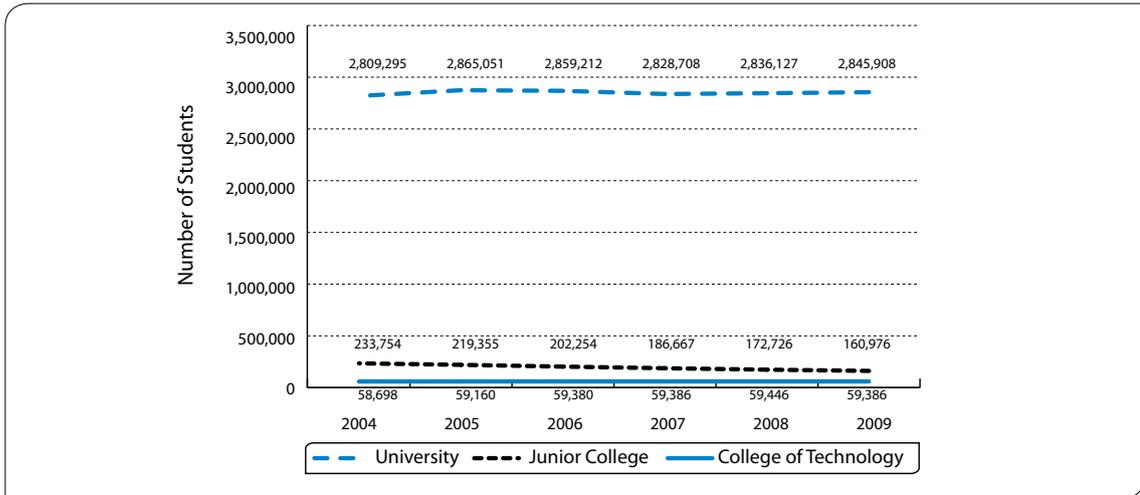
**Figure 7: Education and science budget, 2007-2010 (in billion yen)**



**Source:** Ministry of Finance

Second, although there was a slight rise in numbers of students enrolled at universities, there was a decrease in numbers of students at both junior colleges and colleges of technology between 2008 and 2009 (Figure 8).

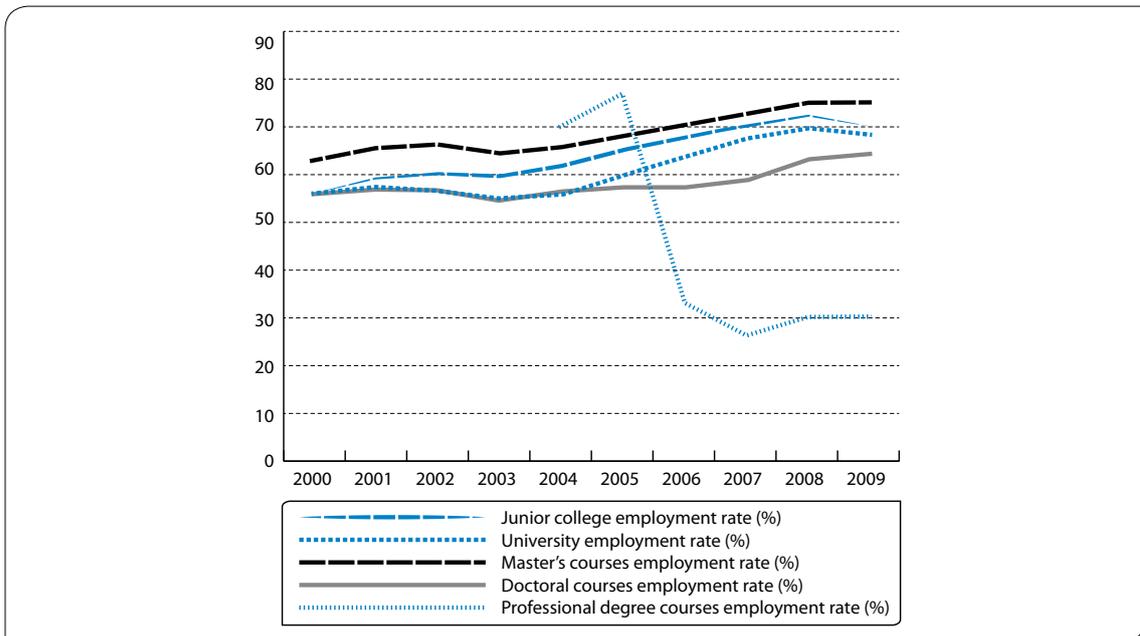
**Figure 8: Student enrolment in higher education institutions, 2004-2009**



**Source:** Ministry of Education, Culture, Sports, Science and Technology (MEXT)

Thirdly, as indicated in Figure 9, between 2008 and 2009 there was a slight decline in the employment rate of graduates of junior colleges and universities. There was a small decrease in employment rates of students with master's degree, while there was a small rise in the employment rate of students with doctorate degree. No major change occurred in the employment rate of students studying professional degree courses.

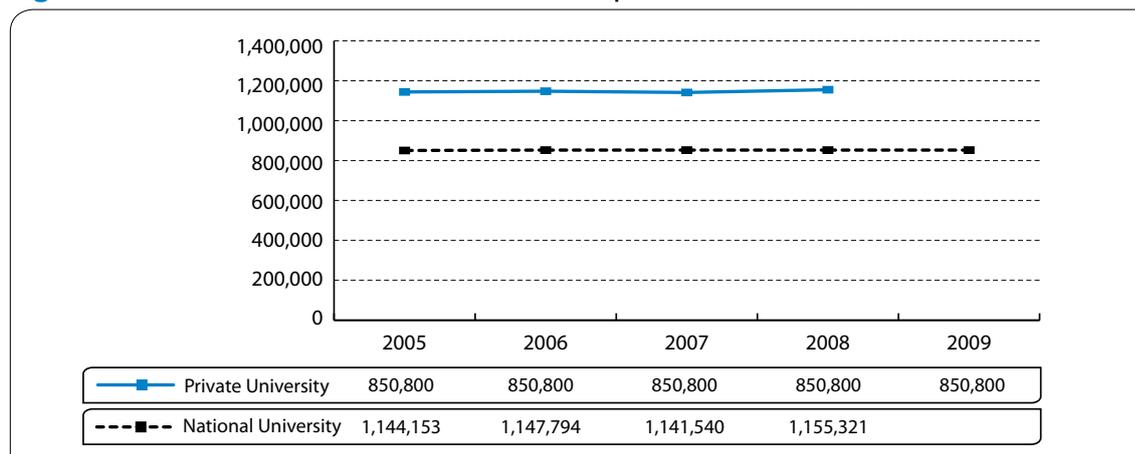
**Figure 9: Student employment rates, 2000-2009**



**Source:** Ministry of Education, Culture, Sports, Science and Technology (MEXT)

The global financial crisis did not lead to any increase in tuition fees among national universities. As indicated in Figure 10, there was a slight rise in the amount of tuition fees collected at private universities in 2008, but among national universities the amount of fees collected remained constant between 2008 and 2009.

**Figure 10: Trends in tuition fees in national and private universities, 2005-2009**



**Source:** Ministry of Finance

## 4. Conclusion

The period of economic growth in Japan that began in 2002 had run out of steam in late 2007, and the global financial crisis that began in late 2008 intensified the economic downturn. The crisis had more of an impact on Japan's real economy than on its financial system. The main effect was a reduction in exports, resulting in an increase in the unemployment rate, a reduction in GDP, GNI and national tax revenues, and rising government bond issues.

Although the global financial crisis clearly had an impact on the Japanese economy, there was no major impact on higher education in Japan. The budget for Education and Science decreased in 2008, the numbers of students enrolled at colleges decreased and the employment rates of graduates fell, in consequence of the global financial crisis, but these changes were not significant. It may be too early to identify how the crisis has impacted on higher education, however, so the subject should be examined again in future.

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# Republic of Korea

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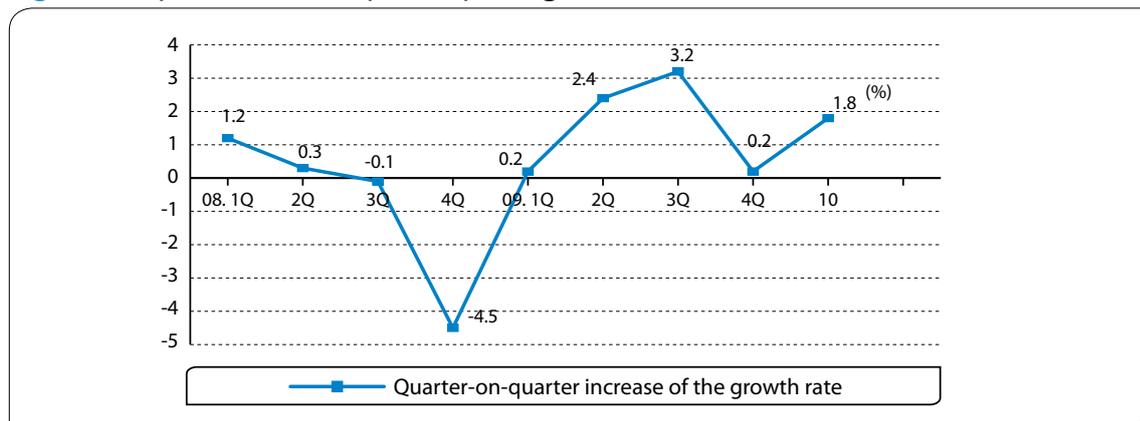
# 1. Impact on the Korean economy and society

## 1.1 Economic trends during the economic crisis

In early 2009, after the Korean economy had plunged in the fourth quarter of 2008 amidst the global financial crisis, the government set the administration on “emergency economy rescue mode” and introduced measures to stabilize the financial market and revive the domestic economy. In order to normalize financial functions and recover the real economy, the government carried out a series of stabilization policies, such as expanding credit guarantees to Small and Medium-sized Enterprises (SMEs) and structural reorganization in the business sector. Thanks to the prompt measures, supported by a rise in exports and an increase in consumption and investment, the domestic economy was back on track by the latter half of 2009.

The rate of economic growth quickly turned upwards during the first quarter of 2009. Korea also achieved a 0.2 per cent increase in the growth rate in 2009, compared to the previous year, in striking contrast to the stagnant economies of most other advanced economies. The strong recovery continued into 2010, with improvement in consumption and facility investment, leading to a huge current account surplus. The economy grew again in the first quarter of 2010, by 7.8 per cent year-on-year and 1.8 per cent quarter-on-quarter. The Korean economy was projected to continue a steady upward trend in 2010, backed by a continuing increase in exports and a recovery of domestic demand led by private consumption and equipment investment.

**Figure 1:** Republic of Korea, quarterly GDP growth rate, 2008Q1-2010Q1



**Source:** The Bank of Korea, Economic Statistics System (ECOS)(2010)

**Table 1: GDP and expenditure by type of economic activity, 2008-2010**

	Annual		2008				2009p				2010p	
	2008	2009p	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	
	(% change from previous year)											
GDP	2.3	0.2	1.2	0.3	-0.1	-4.5	0.2	2.4	3.2	0.2	1.8	(7.8)
			(5.5)	(4.4)	(3.3)	(-3.3)	(-4.3)	(-2.2)	(1.0)	(6.0)	1.8	(7.8)
Other than agriculture, forestry and fishery	2.2	0.2	1.1	0.2	-0.1	-4.6	0.3	2.4	3.2	0.2	2.0	(8.0)
Agriculture, forestry and fishery	5.6	1.6	5.2	1.9	-0.6	0.5	-0.1	-0.4	2.9	0.4	-4.4	(-1.3)
Manufacturing	2.9	-1.6	1.4	1.0	-0.6	-11.2	-2.5	8.0	9.4	-1.7	3.6	(20.0)
Construction	-2.5	1.9	-2.4	-2.2	1.5	-3.8	4.4	1.2	-1.0	-0.6	1.6	(1.2)
Services	2.8	1.0	1.0	0.2	0.3	-1.2	0.3	1.0	0.9	0.9	1.5	(4.3)
Private consumption	1.3	0.2	1.1	-0.3	0.1	-4.5	0.3	3.3	1.7	0.4	0.6	(6.2)
Government consumption	4.3	5.0	0.6	1.5	1.0	1.7	2.9	0.7	0.0	-2.4	5.7	(3.8)
Facility investment	-1.0	-9.1	0.4	1.2	-1.0	-13.9	-10.5	9.0	10.8	5.3	1.5	(28.8)
Construction investment	-2.8	4.4	-4.2	-0.4	0.7	-3.3	5.9	1.8	-0.7	-0.1	0.9	(1.9)
Goods exports	4.6	0.0	0.5	1.3	-0.5	-12.5	-1.7	13.5	5.1	-1.5	3.4	(21.3)
Goods imports	4.5	-7.9	0.8	1.7	0.4	-15.5	-5.8	8.7	8.0	-1.3	5.4	(22.1)
GNI	1.4	-3.8	0.9	0.3	0.3	-7.0	-2.0	1.6	4.2	0.7	2.7	(9.5)
GDI	-1.2	1.7	-1.0	-0.3	-2.3	-2.7	0.1	4.7	1.4	2.8	1.0	(9.1)

**Notes:** At 2005 chained prices, seasonally adjusted Standard index year: 2005  
P = Provisional

**Source:** Bank of Korea, Economic Statistics System (ECOS)(2010)

## 1.2 Government initiatives for economic recovery

### A. Financial market

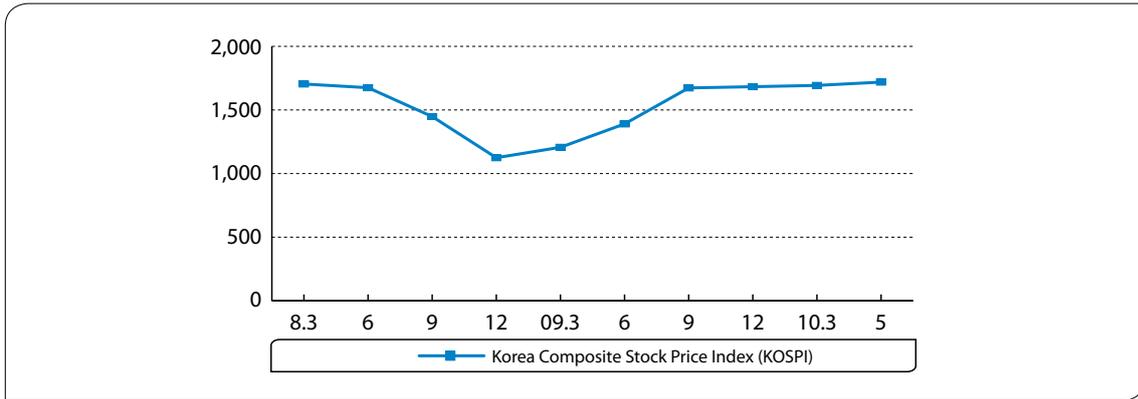
In response to the financial crisis that hit the country in September 2008, the Korean government implemented prompt measures to stabilize the money market and bring an early rebound to the real economy.

Measures included:

- Lowering the base rate; expansion of liquidity provision
- The FAST-TRACK Programme (October 2008), expansion of credit guarantees to small and medium-sized enterprises (SMEs)
- Funding for the bond market and bank capital
- Occasional restructuring of enterprises

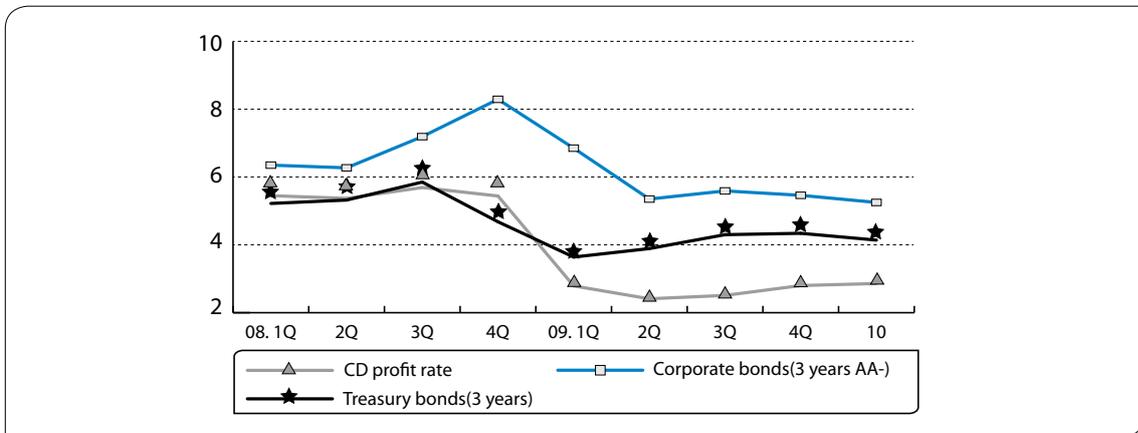
Thanks to the timely intervention, many major financial indicators, including stock prices and interest rates returned to pre-crisis values by the end of 2009.

**Figure 2: Korea composite stock price index, 2008-2010**



Source: Bank of Korea, Economic Statistics System (ECOS)(2010); Statistics Korea (2010)

**Figure 3: Major market interest rates**



Source: Bank of Korea, Economic Statistics System (ECOS)(2010); Statistics Korea(2010)

## B. Foreign exchange market

The Korean government implemented a number of policies to address the domestic foreign exchange market turbulence triggered by the global crisis, including:

- Conclusion of currency swap deals with the United States (US), Japan and China
- Supply of foreign currency liquidity
- Issuance of 3 billion US dollars (USD) in foreign exchange stabilization bonds
- Institutional improvement to increase foreign liquidity

## C. Current account

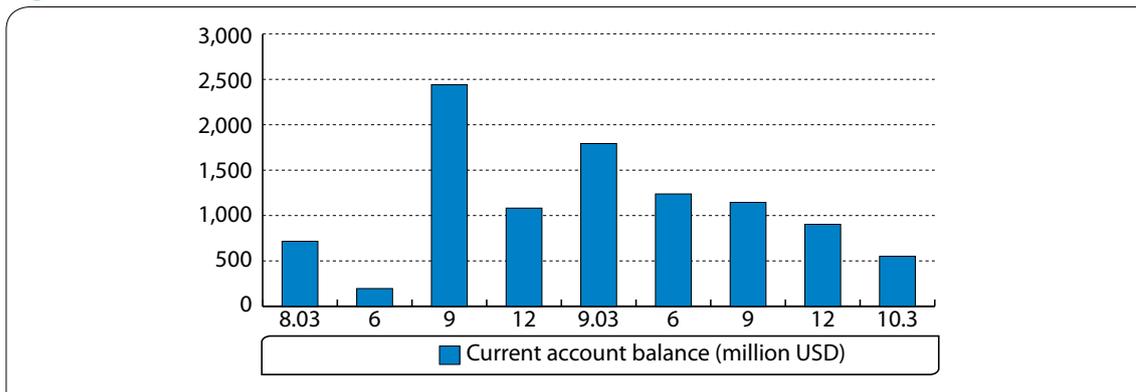
Korea's current account surplus reached an all time high of 42.67 billion USD in 2009, owing to a huge rise in the goods account surplus, which rose from 5.7 billion USD to 56.1 billion USD. The service account had a shortage of 17.2 billion dollars in 2009, similar to that of 2008, due to a decrease of surpluses and an increase of deficit in other services, which eroded the decline of overseas travel deficits. An urgent need was identified to advance service industries and reduce the deficit in the service account balance.

**Table 2: Current account balance, 2008-2009 (100 million USD)**

	2008	2009p				
	Annual	Annual	Q1	Q2	Q3	Q4
Current account	-57.8	426.7	86.2	131.0	104.0	105.6
1. Goods balance	56.7	561.3	83.1	175.8	147.0	155.4
Exports (FOB)	4,329.2	3,735.8	781.8	896.8	986.9	1,070.4
Imports (FOB)	4,272.5	3,174.6	698.7	721.0	839.8	915.0
2. Service balance	-166.7	-172.0	-19.3	-41.7	-53.3	-57.7
Income	771.8	585.1	148.4	135.5	142.0	159.2
Expenditure	938.5	757.2	167.7	177.2	195.4	216.9
3. Income balance	59.0	45.5	9.2	2.9	16.9	16.5
Income	231.2	157.0	35.5	41.6	37.8	42.1
Expenditure	172.2	111.5	26.3	38.7	20.9	25.7
4. Current transfers	-6.7	-8.1	13.1	-6.0	-6.6	-8.6
Income	140.7	124.6	37.4	28.6	29.0	29.6
Expenditure	147.4	132.7	24.2	34.6	35.7	38.2

**Note:** P = Provisional

**Source:** Bank of Korea, Economic Statistics System (ECOS)(2010)

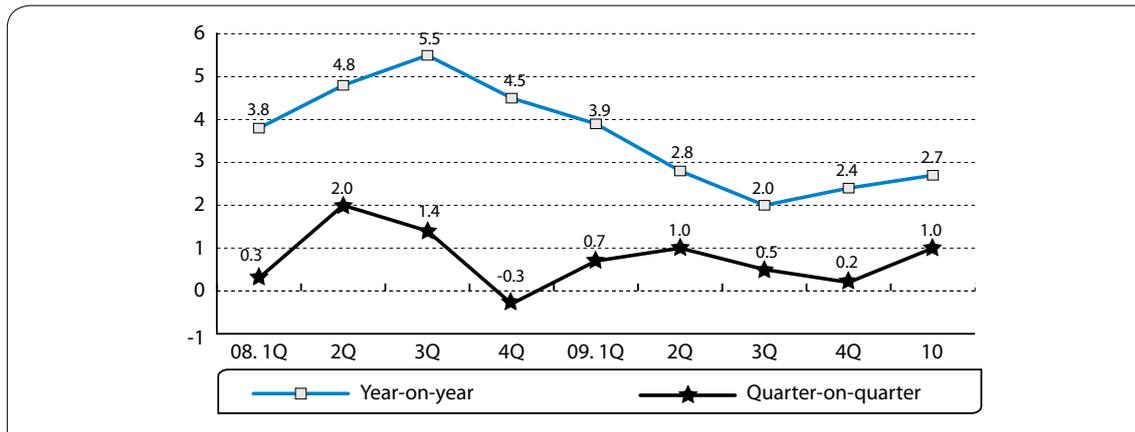
**Figure 4: Current account balance, 2008-2010**

**Source:** Bank of Korea, Economic Statistics System (ECOS)(2010)

## D. Prices

The inflation rate reached a high of 5.5 per cent in the third quarter of 2008, following the surge of international crude oil prices. But targeted government policies succeeded in lowering the inflation rate to 2 per cent by the third quarter of 2009.

**Figure 5: Inflation rates, 2008Q1-2010Q1**



Source: Bank of Korea, Economic Statistics System (ECOS) (2010)

## E. Employment

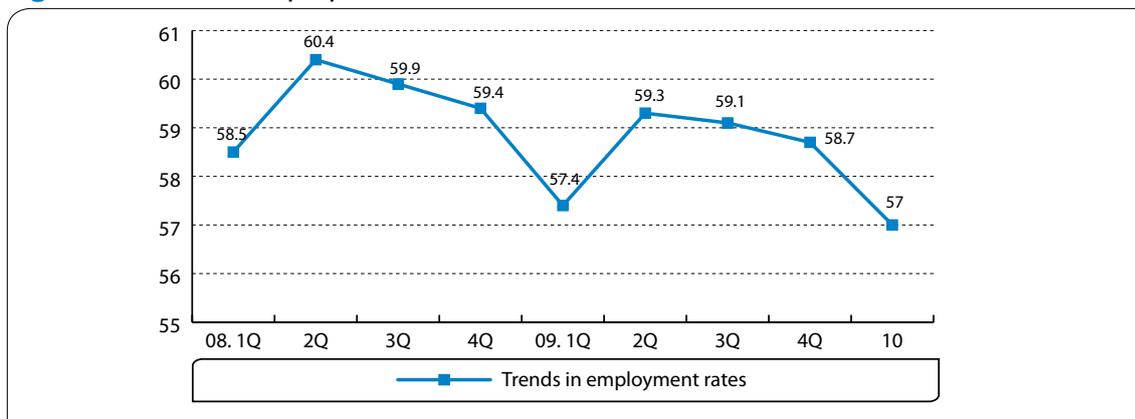
Unemployment rates, including those for youth, were at a high level from the latter half of 2008 to early 2010. In response, the government introduced policies to assist employment of vulnerable groups, including the Hope and Work project, youth internships and job opportunities in social services. In 2009, the three programmes together created jobs for 520,000 persons. In 2010, however, the number of created jobs decreased to 290,000.

**Table 3: Government job creation programmes**

Year	Hope and Work Project	Youth internships	Social service job opportunities	Total
2009	250,000 (June~December)	100,000 (April~December)	170,000 (Year-round)	520,000
2010	100,000 (March~June)	50,000 (March~August)	140,000 (Year-round)	290,000

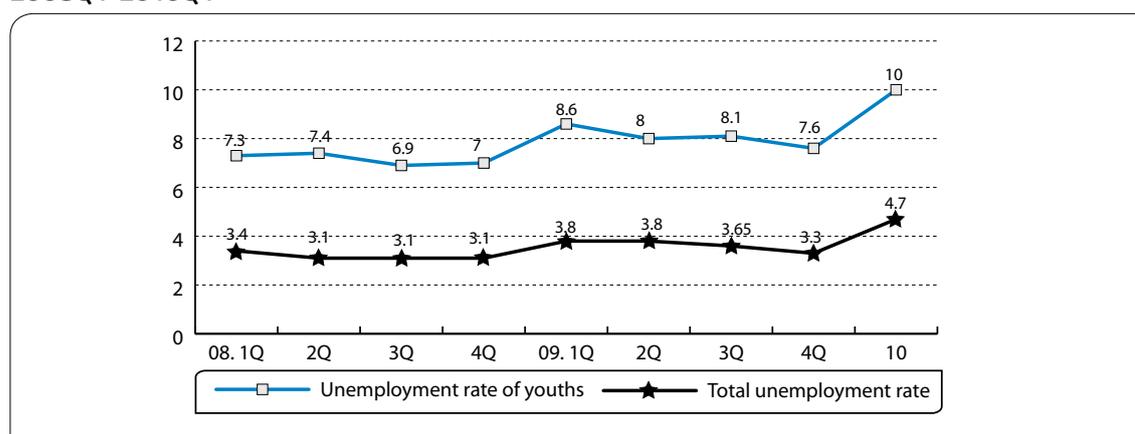
Source: Ministry of Education, Science and Technology.

**Figure 6: Trends in employment rates, 2008Q1-2010Q1**



Source: Statistics Korea (2010)

**Figure 7: Trends in total unemployment rate and youth unemployment rate, 2008Q1-2010Q1**



Source: Statistics Korea (2010)

**Table 4: Trends in unemployment rates**

	2008	2009						2010		
	Annual	Annual	Mar.	Q1	Q2	Q3	Q4	Q1	Feb.	Mar.
No. of unemployed (tens of thousands)	76.9	88.9	95.2	90.8	94.3	88.6	81.7	113.0	116.9	100.5
• Unemployment growth (y-o-y, ten thousand)	Δ1.4	11.9	14.2	10.7	17.6	13.4	6.0	22.2	24.4	5.3
• Male	Δ1.2	8.0	11.2	8.3	11.6	9.5	2.5	8.3	10.1	0.8
• Female	Δ0.1	4.0	3.0	2.4	6.0	3.9	3.6	13.9	14.3	6.0
Unemployment rate (%)	3.2	3.6	4.0	3.8	3.8	3.6	3.3	4.7	4.9	4.1
(Seasonally adjusted)	3.2	3.6	3.7	3.5	3.9	3.7	3.5	4.3	4.4	3.8
• Youth	7.2	8.1	8.8	8.6	8.0	8.1	7.6	9.5	10.0	9.0
• Middle school graduate or under	2.2	2.5	2.9	2.9	2.6	2.2	2.3	5.1	4.9	3.3
• High school graduate	3.8	4.4	4.5	4.5	4.6	4.6	4.0	5.0	5.1	4.6
• University, college graduate or over	3.0	3.5	4.0	3.6	3.7	3.7	3.2	4.2	4.6	4.1

Source: Statistics Korea (2010)

## F. Household income

In real terms, household income declined over the period of the economic crisis, which had a negative impact in terms of ability to pay for education costs. Those in the top 10 per cent of the household income tier spend nine times more on education. Furthermore, students' scores on the national university entrance examination reveal a difference corresponding to household income levels. Thus, income disparity has increased the education gap.

## 2. Impact on government revenue and expenditure

### 2.1 Structure of government finance

In 2009, the Korean government's total revenue reached 255.3 trillion Korea won (KRW), while total expenditure and net lending stood at 272.9 trillion KRW, creating a consolidated fiscal balance of 17.6 trillion KRW. The central government's total expenditure was 301.8 trillion KRW (29.3 per cent of GDP) in the same year. Of this, budgets accounted for 201.3 trillion KRW, up by 12.3 per cent from a year earlier. Contributions reached 91.5 trillion KRW, an increase of 21.2 per cent compared to the previous year.

**Table 5: Trends in government finance (2003-2010), in trillion KRW**

	2003	2004	2005	2006	2007	2008	2009 tentative	2010 budget
Total revenues	171.9	178.8	191.4	209.6	243.6	250.7	255.3	-
Current revenues	170.5	177.4	190.2	208.1	241.7	248.8	252.7	-
Capital revenues	1.5	1.3	1.3	1.5	1.9	1.9	2.5	-
Total expenditure and net lending	164.3	173.5	187.9	205.9	209.8	238.8	272.9	-
Current expenditure	136.2	145.1	160.3	173.7	169.7	196.9	209.7	-
Capital expenditure	30.6	27.0	24.6	26.5	33.0	36.5	45.1	-
Net lending	-2.5	1.4	3.0	5.7	7.1	5.5	18.0	-
Consolidated fiscal balance	7.6	5.2	3.5	3.6	33.8	11.9	-17.6	-2.0
Percentage of GDP (%)	1.0	0.6	0.4	0.4	3.5	1.2	-1.7	-0.2
Adjusted fiscal balance	1.0	-4.0	-8.1	-10.8	3.6	-15.6	-43.2	-30.1
Percentage of GDP (%)	0.1	-0.5	-0.9	-1.2	0.4	-1.5	-4.1	-2.7

**Source:** Ministry of Strategy and Finance, ECOS data of the Bank of Korea

**Table 6: Total size of government finance (2003-2010), in trillion KRW**

	2003	2004	2005	2006	2007	2008	2009 tentative	2010 budget
Consolidated central government finance	164.3	173.5	187.9	205.9	209.8	238.8	272.9	-
Percentage of GDP (%)	21.4	21.0	21.7	22.7	21.5	23.3	25.7	-
Total central government expenditure (final budget)	-	196.9	209.6	224.1	237.1	262.8	301.8	292.8

**Source:** Ministry of Strategy and Finance, ECOS data of the Bank of Korea

### 2.2 Active fiscal policies

In an effort to minimize the impact of the economic crisis, particularly the impact of the high oil prices, the Korean government allocated a supplementary budget of 4.9 trillion KRW in September 2008. In December 2008, the government made revisions to the 2009 proposed budget, adding 11.4 trillion KRW for programmes to tackle the global financial recession. Then in April 2009, another supplementary budget of 28.4 trillion KRW was prepared. This supplementary budget was designed to stabilize the livelihoods of low-income families, expand job opportunities and sustain employment levels, assist small and medium exporters and business owners, activate the local economy and invest in future priorities, including green growth.

In 2010, with the economy on the upturn, the government reduced the budgets designed to address the economic recession.

**Table 7: Budgets for countermeasure programmes, 100 million KRW**

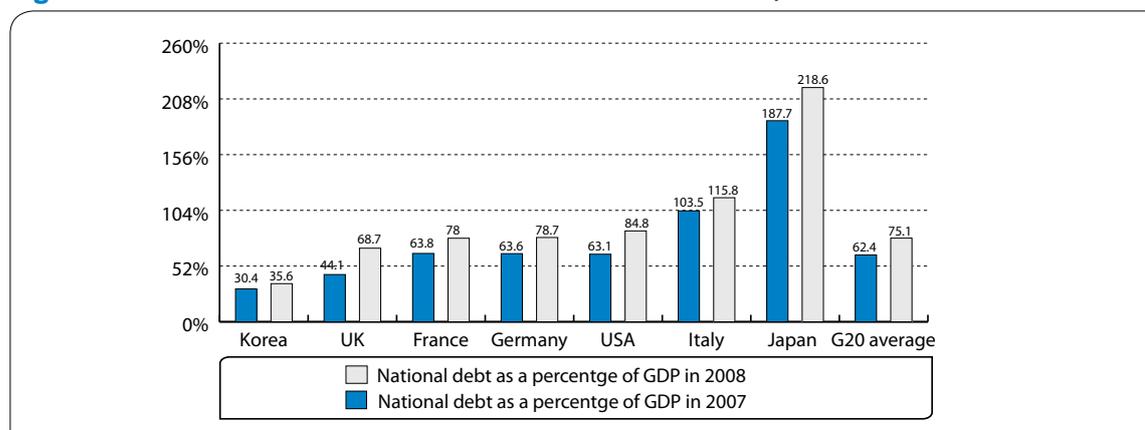
	2009		2010 (B)	B-A	
	Adopted budget	Supplementary budget (A)	2010 (B)	Increase/decrease	Rate of increase/decrease (%)
Industry, SMEs and energy	40,650	89,506	27,781	-61,725	-69.0
SOC	234,150	241,792	236,922	-4,870	-2.0
Agriculture, fishery and foods	20,487	23,108	15,982	-7,126	-30.8
R&D	28,834	32,038	29,238	-2,800	-8.7
Health and welfare	106,502	132,717	108,791	-23,926	-18.0
Job creation	78,966	121,199	89,028	-32,171	-26.5
Education	7,425	9,945	8,972	-973	-9.8
Fluidity support for small and medium exporters, business owners, etc.	23,000	32,500	1,900	-30,600	-94.2
Local finance expansion	620,184	636,964	602,899	-34,065	-81.8
Total	1,160,198	1,319,769	1,121,513	-198,256	-15.0

**Source:** National Assembly Budget Office (2010). National Finance of Korea

Another means of compensating for the decline of domestic demand was an early execution of budgets. Approximately 62.9 per cent (171.5 trillion KRW) of the 2009 budget was disbursed within the first half of the year. At the same time, the government poured effort into supporting the low and middle income bracket, creating jobs through investment promotion, and cutting income and corporate taxes. As a result of these vigorous fiscal policies, Korea's economy shifted to positive growth in the first quarter of 2009, only one quarter after the financial crisis began. Since the second quarter of 2009, the economy has been picking up at a rapid pace.

In terms of national debt, Korea's national debt increased from 30.7 per cent in 2007 to 35.6 per cent in 2009. But even with this increase, Korea's national debt remained well below the average national debt in the "Group of Twenty" (G20) countries (62.4 per cent in 2007 and 75.1 per cent in 2009).

**Figure 8: National debt-to-GDP ratio of advanced economies, 2007 and 2008**



**Source:** Ministry of Education, Science and Technology

Overall, Korea experienced a temporary downturn in 2008 and 2009 as a result of the crisis, but compared to other major countries Korea fared quite well.

## 3. Impact on higher education

### 3.1 General status of higher education in Korea

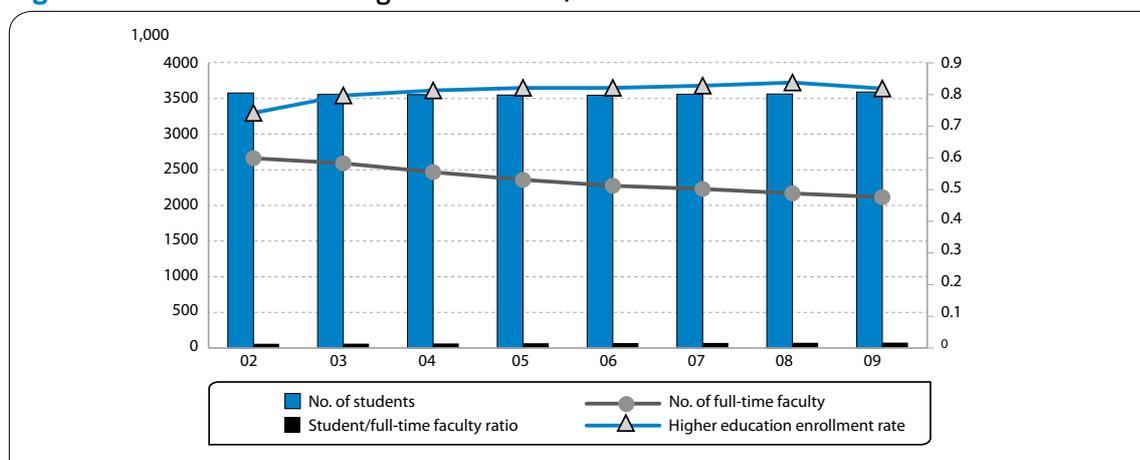
In recent years, Korea has increased the scale of higher education remarkably in terms of the number of institutions, students and faculty. The higher education enrolment rate reached a peak of 83.8 per cent in 2008, placing Korea at the forefront worldwide in this category. In 2009, the enrolment rate made a downward turn, dropping to 81.9 per cent, the first drop since the rate started climbing in 1990. A number of factors contributed to this drop, including changes in the economy, population, peoples' values, early study abroad trends and higher education student admission quotas.

**Table 8: General status of higher education, 2002-2009**

Division	2002	2003	2004	2005	2006	2007	2008	2009
No. of higher education institutions	376	405	411	419	412	408	405	407
No. of students	3,577,447	3,558,111	3,555,115	3,548,728	3,545,774	3,558,711	3,562,844	3,591,088
No. of full-time faculty	59,750	61,012	64,019	66,862	69,201	70,957	73,072	75,469
Student/full-time faculty ratio	59.9	58.3	55.5	53.1	51.2	50.2	48.8	47.6
Higher education enrolment rate	74.2%	79.7%	81.3%	82.1%	82.1%	82.8%	83.8%	81.9%

**Source:** Korean Educational Development Institute. Statistical Yearbook of Education, data by year

**Figure 9: General status of higher education, 2002-2009**



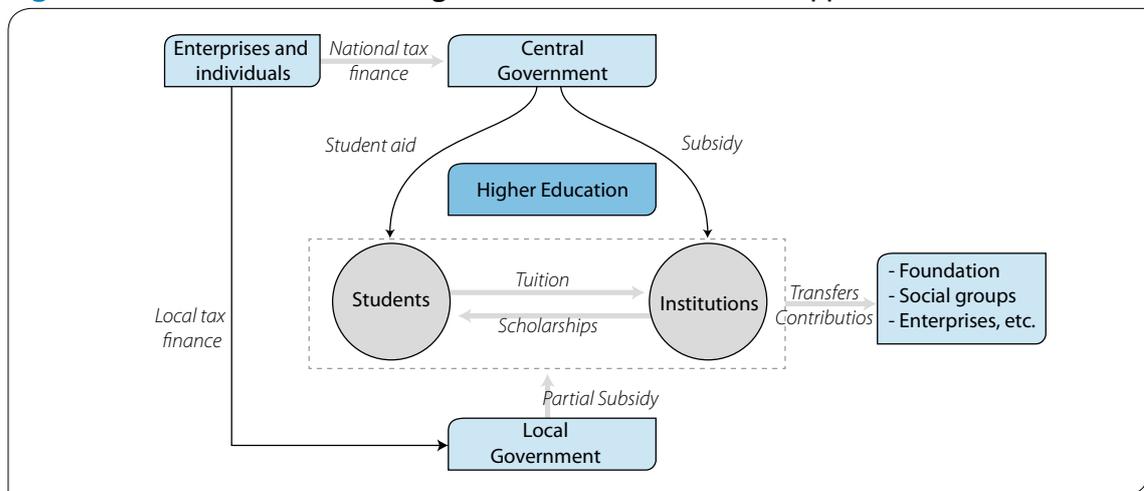
**Source:** Korean Educational Development Institute. Statistical Yearbook of Education, data by year

### 3.2 Main sources of funding and structure of financial support

The main sources of Korea's higher education funding include the government, private education foundations, students and parents, companies and social groups. Public institutions receive government subsidies for financial programmes and expenses such as operating costs and facility expenses. Finance is also secured through government support for tuition and other fees, and contributions from society and business.<sup>12</sup> Private universities and colleges derive their revenues

mainly from tuition fees but also through transfers from educational foundations, government subsidies for various programmes and grants from society and businesses.

**Figure 10: Main sources of funding and structure of financial support**



### 3.3 Features of higher education finance

#### A. Investment in higher education

Since 2000, the Korean government has been increasing its investment in higher education through subsidy programmes such as the Brain Korea 21 (BK21) Project, the New University for Regional Innovation (NURI) Project, the Metropolitan University Specialization Project, the Junior College Specialization Project, the University Restructuring Project, and the Project to Nurture Base Universities for Industry-Academy Collaboration.

Despite the policy efforts, until 2007 the higher education budget saw only a slight annual increase. But in 2008 the budget allocation for higher education was increased by approximately 0.8 trillion KRW, mainly for the purpose of driving innovations in the sector, based on the “Strategic Development Plan for Higher Education” prepared in 2007.

As of 2008, Korea’s investment in higher education represented 0.42 per cent of GDP, 2.37 per cent of the total government budget, and 12.13 per cent of the budget allocated to the Ministry of Education, Science and Technology.

**Table 9:** Expenditure on higher education as percentage of GDP, government budget and ministry budget, 2000-2008, in trillions of KRW

Year	GDP(A)	Government budget(B)	Education budget of the Ministry of Education & S&T(C)	Higher education budget (D)	D/A (%)	D/B (%)	D/C (%)
2000	603.2	93.9	19.2	2.4	0.40	2.57	12.57
2001	651.4	102.5	20.0	2.5	0.39	2.46	12.58
2002	720.5	113.9	22.3	2.6	0.36	2.29	11.73
2003	767.1	120.5	24.4	2.9	0.38	2.41	11.88
2004	826.9	127.0	26.4	3.0	0.37	2.38	11.47
2005	865.2	134.4	28.0	3.3	0.38	2.46	11.83
2006	908.7	144.8	29.1	3.4	0.37	2.34	11.65
2007	975.0	156.5	31.0	3.6	0.37	2.28	11.52
2008	1,026.4	183.5	35.9	4.4	0.42	2.37	12.13

**Notes:**

- 1) Government budget = general account + special account for balanced national development + special account for responsible administrative agencies.
- 2) Budget of the Ministry of Education and S&T: general account + special account

**Source:** Korea Statistical Information Service (KOSIS); Korean Educational Development Institute; 2008 Statistical Education Yearbook

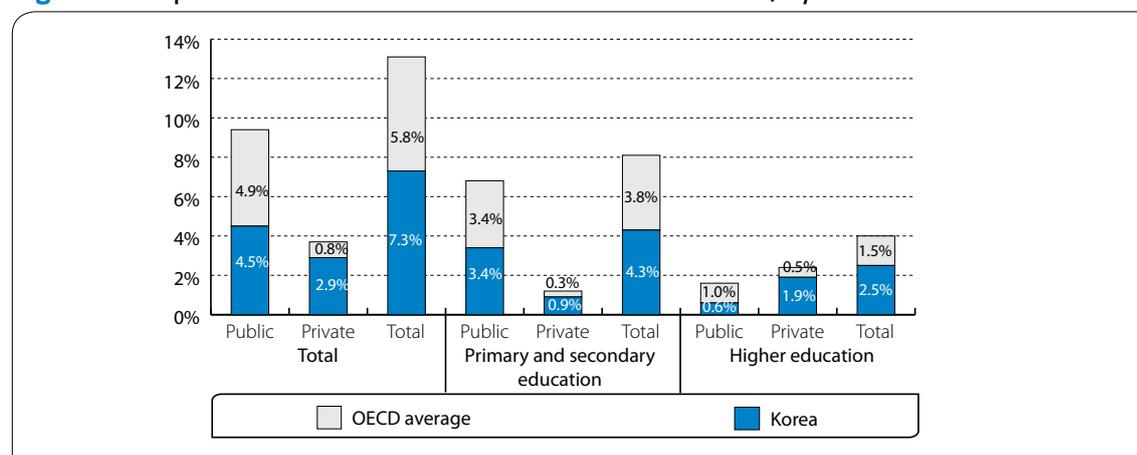
Compared to other OECD member countries, government financing for higher education in Korea is on the rise. But there remains much need for budgeting improvements. Korea's higher education expenditure as a percentage of GDP was 2.5 per cent in 2006, higher than the OECD average of 1.5 per cent, but the share of public spending was 0.6 per cent, falling behind the OECD average of 1 per cent.

**Table 10:** Expenditure on education institutions as a percentage of GDP, by level of education

Announced year	Standard year	Country	All levels of education			Primary and secondary education levels			Higher education level		
			Public	Private	Total	Public	Private	Total	Public	Private	Total
2009	2006	Korea	4.5	2.9	7.3	3.4	0.9	4.3	0.6	1.9	2.5
2009	2006	OECD average	4.9	0.8	5.8	3.4	0.3	3.8	1.0	0.5	1.5

**Source:** OECD. Education at a Glance, data by year

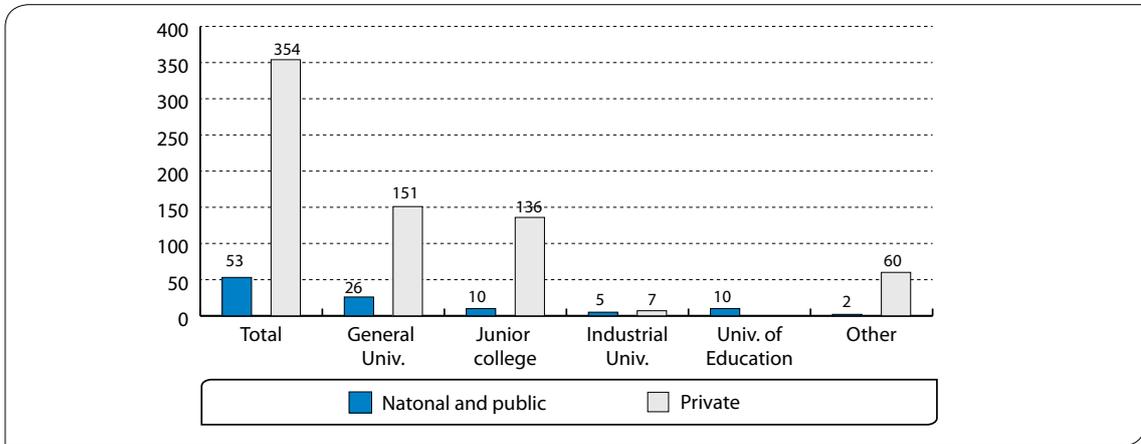
**Figure 11:** Expenditure on educational institutions as of GDP, by level of education



**Source:** OECD(2010). Education at a Glance

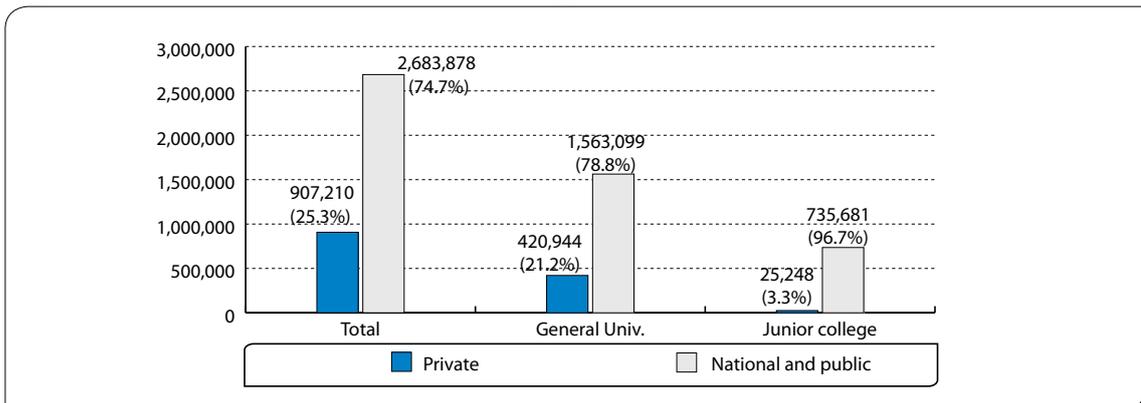
Private universities and colleges make up a very large proportion of Korea's education institutions. Approximately 86.9 per cent of all Korean higher education institutions are private, and 74.7 per cent of higher education students are enrolled in private institutions. Therefore the private share of higher education expenditure is high.

**Figure 12: Status of higher education institutions**



**Source:** Korea Statistical Information Service (KOSIS); Korean Educational Development Institute

**Figure 13: Status of student enrolment in higher education institutions**



**Source:** Korea Statistical Information Service (KOSIS); Korean Educational Development Institute

The Korean government's total investment in higher education institutions is estimated at 31.9735 trillion KRW, out of which private institution budgets represent 79.3 per cent (25.37009 trillion KRW) and public institution budgets represent 20.7 per cent (6.6026 trillion KRW).

**Table 11: Budget for higher education institutions (settled expenditure of general accounts 2008), in 100 million KRW (and percentage)**

		4-year university	Junior college	Industrial university	Other*	Total
National/ public university	Education expense account	18,257 (32.4)	923 (52.3)	1,509 (34.2)	1,633	22,322 (33.8)
	School supporting association account	15,393 (27.3)	255 (14.4)	1,502 (34.0)	1,737	18,887 (28.6)
	Industry-academy cooperation foundation account	20,342 (36.1)	550 (31.2)	1,360 (30.8)	133	22,385 (33.9)
	Development fund	2,293 (4.1)	36 (2.1)	42 (1.0)	59	2,430 (3.7)
	Sub-total	56,285 (100)	1,764 (100)	4,413 (100)	3,503	66,024 (100)
Private university	Education expense account	144,198 (80.6)	42,330 (91.2)	3,448 (85.8)	1,072	191,048 (75.3)
	Industry-academy cooperation foundation account	34,707 (19.4)	4,090 (8.8)	572 (19.4)	19	39,388 (15.5)
	School foundation account					23,271 (9.2)
	Sub-total	178,905 (100)	46,420 (100)	4,020 (100)	1,091 (100)	253,707 (100)
Total		235,190	48,184	8,433	4,594	319,731

**Note:** "Other institutions" include universities of education (public), graduate schools and miscellaneous institutions (private).

**Source:** Korean Educational Development Institute (2008). 2008 Statistical Yearbook of Education

## B. Heavy dependence on tuition income

Tuition fees account for 62 per cent of revenues of private institutions and 32 per cent of revenues of national and public institutions. As of 2009, the average tuition fee was 4.19 million KRW at national higher education institutions, 4.893 million KRW at public institutions, and 7.420 million KRW at private institutions. Over the past five years, tuition fees increased most at national institutions, with an average increase of 8.6 per cent. At public institutions the average increase was 5.7 per cent, while at private institutions the average increase was 5.5 per cent.

In 2009, tuition fees increased by less than one per cent at all national, public and private institutions, a low increase compared to previous years. This was because many higher education institutions put a halt on rises in tuition fees, in consideration of the financial burdens faced by students and their families during the economic downturn.

**Table 12: Ratio of tuition revenues (by standard of 2007 closing accounts)**

	Total	National and public	Private
No. of institutions	195	39	156
Average	56.0	31.8	62.0
Standard deviation	20.4	5.1	18.2

**Source:** Statistics of the Korea Foundation for the Promotion of Private Schools

**Table 13: Trends in tuition rates by institution type (2005-2009), in 1,000 KRW**

	2005		2006		2007		2008		2009	
	Tuition	Increase rate (%)								
National	3,115	7.3	3,426	10.0	3,837	12.0	4,169	8.7	4,190	0.5
Public	3,979	6.7	4,212	5.9	4,534	7.6	4,858	7.2	4,893	0.7
Private	6,086	5.1	6,472	6.6	6,916	6.9	7,380	6.7	7,420	0.5

Source: Korea Foundation for the Promotion of Private Schools, Statistical Database on Higher Education Finance

### 3.4 Impact of the crisis on higher education finance

In the 2009 adopted budget, government subsidies for higher education accounted for 4.8 trillion KRW (12.5 per cent of the total education budget). A supplementary budget of approximately 5 trillion KRW was added to this amount, making the 2009 total budget for higher education 5.3 trillion KRW. This amount was spent on items such as supporting university specialization and diversification, improving the university structure and system, fostering the integration of Information and Communication Technology (ICT) into higher education, promoting research on Korean history, assisting the operation of national universities, covering pensions for private university faculty and repaying the loan principal for Seoul National University. The government's supplementary budget of 2009 was directed towards addressing the economic situation and stabilizing the livelihoods of the people, such as creating jobs.

**Table 14: Ministry of Education, Science and Technology budget, 2009-2010 (in million KRW)**

	2009 Adopted budget	2009 Supplementary budget(A)	2010 budget (B)	Increase/ decrease (B-A)	%
Total	41,215,065	39,994,286	41,741,897	1,747,611	4.4
Total expenditure*	(40,564,718)	(39,343,939)	(41,060,833)	(1,716,894)	(4.4)
Education sector	38,676,117	37,317,538	38,595,975	1,278,437	3.4
	(38,058,255)	(36,699,676)	(37,948,081)	(1,248,405)	(3.4)
Primary and secondary education sector	33,279,743	31,423,956	32,876,196	1,452,240	4.6
	(32,968,118)	(31,112,330)	(32,546,692)	(1,434,362)	(4.6)
Higher education sector	4,824,658	5,310,567	5,054,795	Δ255,772	Δ4.8
	(4,518,423)	(5,004,332)	(4,736,405)	(Δ267,927)	(Δ5.4)
University specialization and diversification	342	342	280	Δ62	Δ8.1
University restructuring	28,322	28,322	38,811	10,489	37.0
Enhancement of university education capacity	1,062,671	1,110,011	1,069,684	Δ40,327	Δ3.6
Higher education ICT support	11,922	11,922	9,022	Δ2,900	Δ24.3
Academic research capacity enhancement	245,912	250,696	276,035	25,339	10.1
Korean history research promotion	27,910	27,910	24,925	Δ2,985	Δ10.7
Infrastructure for a customized national scholarship system	845,578	1,097,563	997,141	Δ100,422	Δ9.1
Administrative support for national universities	2,295,766	2,477,566	2,320,507	Δ157,059	Δ6.3
Pension coverage for private university faculty (internal)	268,375	268,375	285,296	16,921	6.3

	2009 Adopted budget	2009 Supplementary budget(A)	2010 budget (B)	Increase/ decrease (B-A)	%
Loan principal repayment (internal)	37,860	37,860	33,094	Δ4,766	Δ12.6
Lifelong & vocational education sector	442,212	453,512	537,787	84,275	18.6
	(442,212)	(453,512)	(537,787)	(84,275)	(18.6)
General education sector	129,502	129,502	127,197	Δ2,305	Δ1.8
	(129,502)	(129,502)	(127,197)	(Δ2,305)	(Δ1.8)
Science and technology sector	2,538,948	2,676,748	3,145,922	469,174	17.5
	(2,506,462)	(2,644,262)	(3,112,753)	(468,491)	(17.7)
Technology development sector	1,242,307	1,267,923	1,518,293	250,370	19.7
	(1,242,307)	(1,267,923)	(1,518,293)	(250,370)	(19.7)
S&T research support sector	1,210,899	1,323,083	1,541,985	218,902	16.5
	(1,210,899)	(1,323,083)	(1,541,985)	(218,902)	(16.5)
General S&T sector	85,742	85,742	85,644	Δ98	Δ0.1
	(53,256)	(53,256)	(52,475)	(Δ781)	(Δ1.5)

**Note:** \* The total expenditure excludes internal transactions. Figures within parentheses ( ) indicate internal transactions.

Additional higher education budgets were added in 2009, with the aim of compensating for the effects of the economic depression. First, a total of 47.3 billion KRW was allocated to enhance the education capacity of universities, a large portion of which went into supporting unemployed university graduates. Second, 4.784 billion KRW was added for the purpose of raising academic research capability, aiming to nurture the next generation of researchers at the post-doctoral level. Third, 251.9 billion KRW was added to build infrastructure for a customized national scholarship system.

The programme to "Build Infrastructure for a Customized National Scholarship System" was designed to create an environment in which anyone who possesses the will and ability for academic study can access suitable educational opportunities, regardless of economic status. For this, the government allowed university students in all grade years up to the senior level to apply for the scholarship. At the same time, subsidies were increased, to narrow the interest rate difference in executing government-guaranteed student loans. In addition, 71 billion KRW was allocated to widen the coverage of free scholarships to the second lowest income tier, not only to basic livelihood recipients. Another 130 billion KRW was given to the Korea Student Aid Foundation so as to issue foundation bonds, starting in the second semester of 2009. With the bond issuance, the Foundation secured the financial means to operate direct loans and thus lower loan interest rates (between 1 per cent and 1.5 per cent). In addition, eligibility for the work-study scholarship system was extended from junior college students only to university students (an increase from 4,000 to 40,000 beneficiaries). The per student scholarship amount also increased, rising from 2 million KRW to 3 million KRW.<sup>2</sup>

In 2010, the higher education budget was proposed at 5.547 trillion KRW, an increase compared to the adopted budget of 2009, but less by 255.7 billion KRW compared to the previous year's supplementary budget. As for budgets for programmes dealing with the economic recession, 897.2 billion KRW was allocated for scholarship programmes, down by 97.3 billion KRW from the previous year. Budgets for programmes supporting unemployed graduates were set at 7.9 billion KRW, representing a reduction of 39.4 billion KRW compared to 2009.

**Table 15: Change in education budget for programs addressing the economic crisis**

	2009		2010 ( B)	B-A	
	Adopted budget	Supplementary budget (A)	2010 ( B)	Increase/ decrease	Rate of Increase/ decrease
Education sector	7,425	9,945	8,972	-973	-9.8
Contribution to the national scholarship fund	4,107	4,512	2,120	-2,392	-53.0
Scholarship for low-income household students	2,223	2,933	1,817	-1,116	-38.0
Work-study scholarship for university students	1,095	1,200	750	-450	-37.5
Contribution to the Korea Student Aid Foundation		1,300	4,286	2,986	229.7

In summary, in response to the economic crisis of 2008, the Korean government established a policy in April 2009 to provide a supplementary budget of 28.4 trillion KRW, out of which 500 billion KRW was allocated to the higher education sector. A major portion of those supplementary funds was spent in supporting higher education students from low-income brackets and generating job opportunities for unemployed graduates and doctorate degree holders. As the Korean economy picked up and re-entered a growth cycle, the budget for higher education in 2010 was set at a reduced amount compared to the 2009 supplementary budget.

The economic crisis had various effects on the higher education sector. The unemployment rate for university graduates rose from 3 per cent in 2008 to 3.5 per cent in 2009 and then to 4.2 per cent in the first quarter of 2010. At the student level, college students increased individual spending to prepare for future jobs and for studying abroad. At the institution level, higher education institutions had to restrict rises in tuition fees. While public universities increased tuition fees by 8.7 per cent in 2008, they only increased fees by 0.5 per cent in 2009. In the case of private universities, tuition fees increased by 6.7 per cent in 2008 but increased only by 0.5 per cent in 2009.

## 4. Conclusion

Thanks to the government's financial policies, which led to the country's rapid economic turnaround, and as a result of policies such as the increase of budgets for scholarships and job creation programmes, the impact of the financial crisis on Korea's higher education sector appears to be minimal.

The Korean government made a determined effort to increase budgets for the higher education sector in 2009 in the midst of the financial crisis. In addition, considerable additions were made to scholarship and student loan budgets to ensure that students from all income brackets were able to continue their studies. A new programme was set up with supplementary budgets under which unemployed higher education graduates were recruited by their institutions as intern teaching assistants to help build their experience and enhance their employability. This actively addressed the job shortage problem.

While the financial crisis did not have a large impact on the higher education sector, it drew attention to a number of issues relating to education quality and finance brought about by the expansion of higher education. In 1997, when the government introduced simplified regulations for establishing universities, setting simpler standards for school buildings, school sites and teaching faculty, which encouraged profit-making organizations to apply for approval, the higher education sector began growing rapidly. In the years that followed, Korea witnessed an unprecedented expansion in the higher education sector. But these policies that encouraged the establishment of private institutions resulted in a high share of private expenditure in higher education, and a financial structure that relies heavily on tuition fees as revenues.

Another issue affecting the higher education sector is the decrease in the number of high school graduates. With a declining school-age population, in 2003 the total student admission quota of higher education institutions outnumbered high school graduates for the first time, creating a situation of oversupply of higher education places. As such, growth in higher education was restricted, which had impacts on the quality of the education provided. The Korean government is therefore focusing policy efforts towards restructuring universities and enhancing the quality of higher education, with schemes such as merging and consolidating universities, performance-based assessment and budgeting and an intensified quality assurance system (public announcement of information about higher education institutions, self-evaluations, accreditation, etc.). In addition, there are calls for public investment in higher education to be increased.

The government is currently pursuing a policy that involves increasing opportunities for underprivileged groups to access higher education, restructuring procedures to bring more effectiveness into university administration and nurturing global talents under a competitive university system. In particular, in 2010 the government launched a new loan system to lessen the burden of tuition fees. This system allows students to borrow full tuition costs and repay the principal and interest after finding employment and reaching a certain level of regular income. The system is available for students who fall within the first to seventh household income deciles and who have achieved a grade average of B or higher. But as the new system partly substitutes grants for low-income students, some say that it may be problematic in terms of equity and have called for a redesign of the system.

By increasing higher education opportunities for underprivileged students and improving the accreditation and quality assessment of higher education institutions in the long term, the policies are expected to contribute to extended access to higher education and greater quality of education in Korea.

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# Malaysia

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The financial crisis that began in September 2008 in the United States triggered the worst global recession since the Great Depression of the 1930s. Many countries went into recession by the end of 2008 or early 2009. By the third or fourth quarter of 2009, however, most of the affected economies had improved and moved out of recession. In some advanced nations, however, recovery remains fragile.

Many developing countries weathered the storm, and growth has now moved back towards pre-crisis levels. The recovery of those countries was largely due to the policy responses implemented to lessen the adverse effects of the economic crisis, including significant monetary support and inventory correctives. Many countries used stimulus packages and revised monetary policy to counter the recession. Most governments took measures such as budget re-allocations, efficient utilisation of funds and reductions in public expenditure.

With regard to expenditure on higher education, countries varied in their responses. Some governments reduced public funding for higher education, some increased, and some maintained the same level of funding.<sup>13</sup> In March 2009, UNESCO carried out a quick survey to assess the impact of the crisis on education budgets in Member States.<sup>14</sup> The survey report indicated that most governments made considerable efforts to protect education budgets from the adverse impact of the crisis. In the ten countries in the Asia-Pacific region that took part in the survey, eight countries responded to the questions on public education expenditure allocation. Of these eight countries, only two countries (Pakistan and Samoa) reported that expenditure on public education was reduced in terms of its share in Gross Domestic Product (GDP) and government finance as a response to the crisis.

A study by Karkkainen found that overall public finance for education seemed to increase rather than decrease, even though there were budget cuts.<sup>15</sup> This reflects the importance of education and training for economic recovery and future growth. The study found that demand for education in the surveyed countries appeared to be growing during the crisis period. In the context of increasing unemployment and job insecurity, demand tended to focus on acquiring higher levels of qualifications and skills. Thus, unlike many other sectors, the education sector was relatively unaffected, as people took the opportunity to upgrade their skills and better prepare themselves for the labour market.

This paper examines the impact of the economic crisis on higher education in Malaysia, and is part of a collaborative project with the UNESCO Education Research Institutes Network (ERI-Net) in the Asia-Pacific region.

## 2. Impact on Malaysia's economy and society

Malaysia, being a small, open and export-dependent economy was not spared negative impacts from the global crisis. After two consecutive negative growth rates of -6.2 per cent and -3.9 per cent in the first and second quarters of 2009 (as shown in Table 1), the economy was technically considered to be in recession. The economy continued to slip, to -1.2 per cent, in the third quarter of 2009 before it rebounded with a rate of 4.5 per cent in the following quarter.

13 Varghese, N.V. 2009. How the global crisis affected higher education. *IAU Horizons*, Vol. 16, No. 1. <http://www.iau-aiu.net/newsletters/iaunew16-1-en.pdf> (accessed 16 May 2010).

14 UNESCO. 2009. The impact of the crisis on public expenditure on education: Findings from the UNESCO quick survey. ED/EPS/2009/P1/1. Paris.

15 Karkkainen, K. 2010. Summary of the initial education today crisis survey, June 2009. *Impact of the economic crisis on education*, EDU Working Paper no. 43. Paris, Organisation for Economic Co-operation and Development.

The vulnerability of the Malaysian economy to external shocks is a result of its dependency on exports, particularly exports of manufactured products, such as electrical and electronic products. When global demand shrunk during the crisis, in January 2009 the Malaysian economy suffered a 27 per cent drop in exports, the biggest fall the country had experienced since 1981.<sup>16</sup> Malaysia's exports comprise a relatively high component of imported intermediate goods. Thus, when exports decreased in 2009, imports also dropped. A high unemployment rate was recorded in the manufacturing sector, as a result of workers being retrenched. This sector contributed to 63.7 per cent of the total retrenchment in the third quarter of 2009 and 49 per cent in the fourth quarter.<sup>17</sup>

**Table 1: Malaysian key macroeconomic indicators, 2008Q1-2010Q1**

	2008	Q1	Q2	Q3	Q4	2009	Q1	Q2	Q3	Q4	2010 Q1
Real GDP growth (%)	4.6	7.4	6.6	4.8	0.1	-1.7	-6.2	-3.9	-1.2	4.5	10.1*
Inflation (%)	5.4	2.6	4.6	8.4	5.9	0.6	3.7	1.6	-2.3	-0.2	1.3
Domestic demand (%)	6.8	9.8	8.4	6.6	2.8	-0.4	-2.9	-2.2	0.4	3.0	5.7*
Unemployment rate (%)	3.3	3.6	3.5	3.1	3.1	3.7	4.0	3.6	3.6	3.5	3.7
Manufacturing sector (%)	1.3	7.0	5.6	1.8	-8.8	-9.3	-17.9	-14.5	-8.6	5.3	16.9*
Exports (%)	1.3	5.9	9.5	4.5	-13.3	-10.1	-15.2	-17.3	-13.4	7.3	19.3*
Imports (%)	1.9	3.2	8.1	7.3	-10.2	-12.5	-23.5	-19.7	-12.9	6.9	27.5*
Exchange rate MYR/USD	3.33	3.20	3.22	3.37	3.55	3.52	3.64	3.53	3.50	3.41	3.37

**Sources:** Malaysia Ministry of Finance, Quarterly Reports, 2009; The Star, 14 May 2010

The global crisis also had a negative impact on the inflow of foreign direct investment. In the first half of 2009, foreign direct investment declined to 1.08 billion United States dollars (USD), compared to 5.92 billion USD in the same period in 2008.<sup>18</sup> Malaysia also suffered capital flight from the second quarter of 2008 onwards, as banks and financial institutions in the United States and European countries reduced their international trading. Net financial and capital inflow dropped drastically, from 37.8 billion Malaysia ringgit (MYR) in 2007 to minus 123.9 billion MYR in 2008.<sup>19</sup>

The huge capital outflows and decline in demand for exports depressed the value of the Malaysian ringgit during the economic crisis. In the first quarter of 2009, the ringgit stood at about 3.64 MYR per 1 USD, a depreciation of 13.7 per cent compared to the same quarter in 2008. Ringgit depreciation was thought to lessen the impact of the crisis by helping to improve exports.

Inflation was at an all time high in the third quarter of 2008, as a result of a price hike in crude oil, which peaked at 148 USD per barrel in July 2008. Subsequently, inflation fell to -2.3 per cent in the same quarter a year later, when the economy was in recession and aggregate demand was low.

When the global economy was on the road to recovery in the fourth quarter of 2009, the Malaysian economy also bounced back. The global economic recovery and strong domestic demand spurred economic growth. In the first quarter of 2010, the economy recorded a robust growth of 10.1 per cent.<sup>20</sup> On the supply side, the manufacturing sector grew by 16.7 per cent, driven by 25.9 per cent growth in electrical and electronic products, 25.3 per cent growth in transport equipment and 18.7 per cent growth in wood products and furniture. Other sectors, including service, construction and agriculture, also grew strongly.

In the second quarter of 2010 the economy grew by 8.9 per cent, which resulted in a growth rate of 9.5 per cent in the first half of the year. As growth in advanced and emerging economies was expected to slow down, this was anticipated to affect Malaysia's exports, so growth in 2010 was not

16 Bank Negara Malaysia. 2009. *Monthly Statistics Bulletin*, March.

17 Malaysia Ministry of Finance. 2009. *Fourth Quarter Report*.

18 Malaysia Ministry of Finance. 2009. *Fourth Quarter Report*.

19 Bank Negara Malaysia, *Monthly Statistics Bulletin*.

20 Singh, D. 2010. "Robust 10.1, Malaysia's highest Q1 growth since 2000", *The Star Newspaper*, 14 May 2010.

expected to continue to be so high. Economic performance in the future will greatly depend on the direction the advanced and emerging economies are heading.

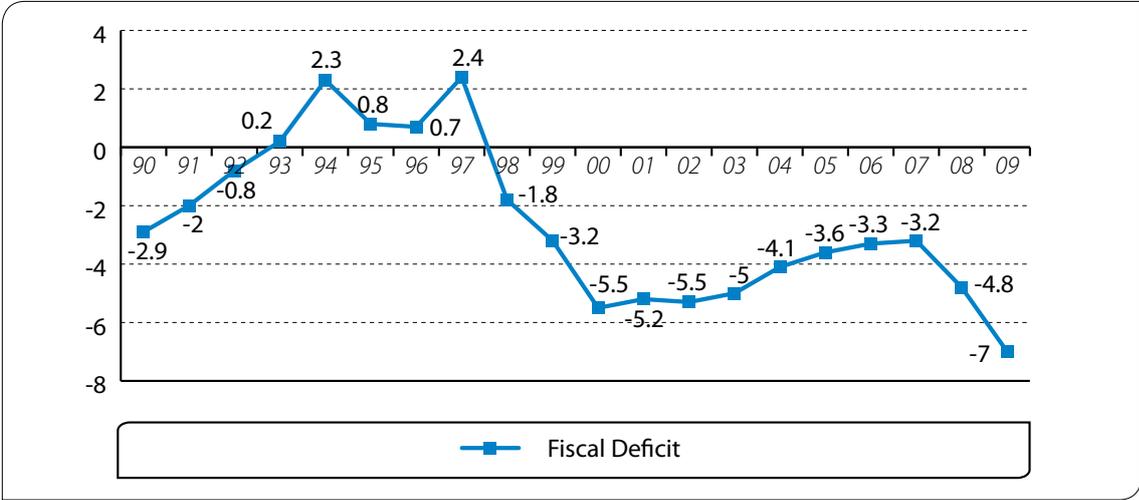
### 3. Impact on government revenue and expenditure

The federal government budget has been in deficit since independence, except for a brief period of surplus between 1993 and 1997, as indicated in Figure 1. During the Asian Financial Crisis of 1997/98, the government budget reversed to a fiscal deficit to boost the economy. After the economic recovery the deficit widened, until it peaked at 5.5 per cent of GDP in 2000. Although the fiscal deficit has since declined, to 3.2 per cent of GDP in 2007, it widened again to 4.8 per cent of GDP in 2008 following measures introduced to cushion the impact of high crude oil and food prices.

The deficit swelled to 7 per cent of GDP in 2009 as a result of the efforts to minimise the impact of the global financial crisis.<sup>21</sup> The fiscal deficit would be larger if oil revenue were excluded, which contributed about 40 per cent of the total revenue, but which was unsustainable as oil reserves would eventually be depleted. For instance, the non-oil fiscal deficit was 11 per cent of GDP in 2008 and 14.3 per cent of GDP in 2009.

Malaysia has a high national savings rate of an average of 37 per cent of GDP, and excess liquidity in the system allowed about 80 per cent of the fiscal deficit to be financed through domestic sources, in the form of government securities. This domestic composition of debt is non-inflationary and it can also insulate the economy from exchange rate risks.

**Figure 1: Federal government fiscal deficit, 1990-2009 (% of GDP)**

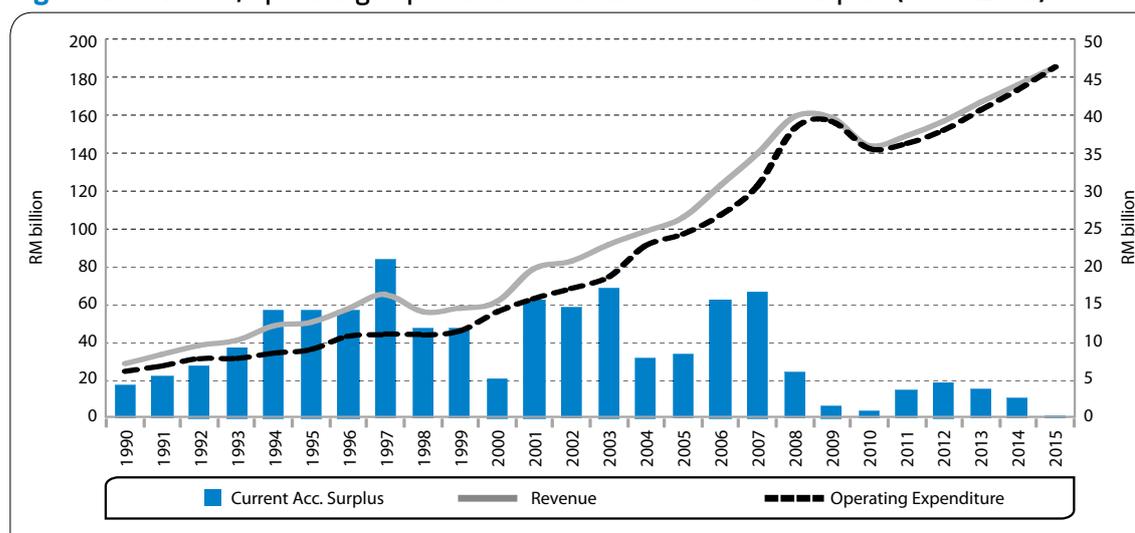


Source: Ministry of Finance

During the period between 2006 and 2008, Malaysia’s government revenue grew at a slower pace compared to its operating expenditure and the current account surplus was forecasted to be largely eroded during the crisis (2009) and post-crisis (2010) (see Figure 2).

21 Ministry of Finance. 2009. Quarterly Report.

**Figure 2: Revenue, operating expenditure and current account surplus (1990–2015)**



**Source:** Ministry of Finance

Federal government revenue grew at 14.6 per cent per annum, whereas operating expenditure increased at a higher rate of 16.2 per cent per annum. This resulted in the erosion of the current account surplus to only 2 per cent of GDP. If operating expenditure was to decline to 3.5 per cent per annum in 2009/10, the overall operating expenditure in the 9<sup>th</sup> Malaysia Plan would still remain relatively high, at 7.9 per cent per annum, compared with growth in revenue of 6.3 per cent per annum during the same period. This would constrict the current account surplus further, to only 0.2 per cent of GDP in 2010.<sup>22</sup> Based on the expected revenue growth of 4.3 per cent per annum, the federal government may face a current account deficit in the 10<sup>th</sup> Malaysia Plan, if operating expenditure exceeds 5 per cent per annum.

The efficiency of government spending seems to have dwindled from 0.24 USD per 1 USD GDP in 2005 to 0.31 USD in 2009. This level is high compared with other countries, such as the Philippines (0.18 USD), the Republic of Korea (0.29 USD), Singapore (0.18 USD) and the United States (0.26 USD).<sup>23</sup>

The combination of the huge capital outflow and the narrowing of the current account surplus during the crisis led to deterioration of the balance of payments and foreign reserves stock. The stock of foreign reserves declined from 410 billion MYR in June 2008 to 316 billion MYR in December 2008.<sup>24</sup> Malaysia's relatively high foreign reserves can act as a buffer during periods of large outflow of capital.

In 2009 there was an overall increase in government expenditure, in an effort to minimise the effects of the global financial crisis. In 2009 operating expenditure increased by 2.3 per cent, to 157.1 billion MYR from 153.5 billion MYR in 2008. Development expenditure also rose, by 15.6 per cent, from 42.8 billion MYR in 2008 to 49.5 billion MYR. Education and training was one of the subsectors which contributed to the increase in expenditure. Development expenditure was spurred by the acceleration in project implementation under the 9<sup>th</sup> Malaysia Plan and the stimulus package. Furthermore, in 2009 extra funds were re-allocated to cushion the economy from the adverse impacts of the crisis.

Lower revenue collection was indicated in the three quarters of 2009 in comparison with the year before. There were reductions of 10.6 per cent and 8 per cent in the third and fourth quarters of 2009,<sup>25</sup> mainly as a result of a contraction in tax receipts that resulted from the economic slowdown that began in the fourth quarter of 2008.

<sup>22</sup> Ministry of Finance Malaysia. 2009. *Quarterly Report*.

<sup>23</sup> *Ibid.*

<sup>24</sup> Bank Negara Malaysia. 2009. *Monthly Statistics Bulletin*, March.

<sup>25</sup> Ministry of Finance. 2009. *Fourth Quarter Report*.

Like many other governments, the Malaysian government introduced a series of economic stimulus packages to prevent the economy from slipping into a deep recession. With the stimulus packages, it was hoped that an increase in public expenditure would stimulate domestic demand. The first stimulus package, worth 7 billion MYR, was announced in November 2008. The main focus of this package was construction and infrastructure development, which the government claimed would have a large and immediate multiplier impact on the economy. The global economic conditions worsened in the fourth quarter of 2008 and early 2009, however, and it was feared that the Malaysian economy might fall into a deeper recession. This prompted the government to introduce a second stimulus package, which was announced in March 2009. The Second Stimulus Package (SSP), which many analysts considered as a mini budget, was significantly larger (worth 60 billion MYR) and more comprehensive than the first, encompassing various economic sectors and target groups. The package accounted for almost 9 per cent of the GDP. The implementation of this large stimulus package was said to be unprecedented in the nation's economic history. The package was implemented over a two-year period between 2009 and 2010. It was hoped that the measures outlined in the stimulus package would be able to stimulate the Malaysian economy in the short term and build the capacity of the economy in the long-term.

There was no allocation for higher education in the first stimulus package, which focused on projects with a high and immediate multiplier effect so as to boost the ailing economy (investment in higher education tends to have a longer time lag in terms of multiplier effects). Although the higher education sub-sector did not receive funds, the first package allocated some funds to education-related sectors, with 500 million MYR allocated to improve public amenities such as roads, schools and hospitals. Another 200 million MYR was allocated for schools, with equal parts going to religious schools, "missionary schools", and Chinese and Tamil vernacular schools.

In the second stimulus package, 280 million MYR (0.46 per cent of the package) was allocated to higher education. Out of that, 110 million MYR was allocated for scholarships, 30 million MYR was allocated for the establishment of ten community colleges, and the balance, 140 million MYR, was allocated for the purchase of medical equipment in teaching hospitals. It is believed that without this injection in the system, the objectives of the National Higher Education Strategic Plan 2020 would be difficult to achieve. This is particularly true with regard to the MyBrain 15 project, which was introduced with the objective of producing more Malaysians with PhD qualifications.

## 4. Impact on higher education

The Ministry of Higher Education (MoHE) was established in March 2004 and it was entrusted with the responsibility of providing strategic direction and overseeing the development of the higher education sub-sector. The Ministry is also committed to driving higher education transformation in order to develop first-class human capital, as envisaged under the 9<sup>th</sup> Malaysia Plan (2006-2010) and the recently launched 10<sup>th</sup> Malaysia Plan (2011-2015).

The higher education system comprises public and private Higher Education Institutions (HEIs), of which the public HEIs comprise universities, polytechnics and community colleges, and private HEIs also include colleges, overseas branch campuses, open and virtual universities and Information Technology (IT) academies. As of 2009, public HEIs received 90 per cent of their funding from government sources, with the remainder being derived from student fees.

With the establishment of a separate Ministry to cater for higher education, the Ministry of Education (MoE) manages the strategic direction and operation of primary and secondary levels of education. Government education funds are now divided between the two ministries. Table 2 below shows the distribution and allocation percentage of the government expenditure on each type of education. For the purpose of this study, the expenditure on higher education was examined to identify any changes in the allocation to higher education during the financial crisis.

## 4.1 Impact on higher education expenditure

In 2008, the allocation for overall education expenditure increased by 21 per cent, from 32.27 billion MYR in 2007 to 39.08 billion MYR. In 2009, when the economy slipped into recession, the allocation for overall education expenditure rose again, by 18.7 per cent, from 39.08 billion MYR in 2008 to 46.38 billion MYR in 2009.

With regard to the higher education subsector, in 2008 the amount allocated to the MoHE declined, by 6.4 per cent, compared with the year before. In real terms, after allowing for the inflation rate, the reduction was as high as 11.9 per cent. In 2009, however, the amount allocated to the MoHE increased enormously (by 47.8 per cent), from 9.5 billion MYR in 2008 to 14.1 billion MYR (Table 2). Funds were channelled to equip the public universities in terms of facilities for medical training, the Research Universities (RUs) and APEX University. Funds were also allocated for the expansion of post-secondary education facilities, such as polytechnics and community colleges.

**Table 2: Total government expenditure, education expenditure and higher education expenditure, 2007-2010**

Year	Total government expenditure (GE)*	Total educational expenditure (% of GE)* (MoE)	Total higher education expenditure (% of GE)* (MoHE)
2007	159,496,147,000	22,149,790,900 (13.9%)	10,199,979,588 (6.3%)
2008	176,917,420,000	29,538,961,000 (16.7%)	9,546,957,549 (5.3%)
2009	213,215,000,000	32,271,000,000 (15.1%)	14,115,675,800 (6.6%)
2010	191,498,805,000	30,519,112,700 (15.9%)	13,023,022,500 (6.8%)

**Note:**\* Includes operating and development expenditure

**Sources:** Economic Report, Ministry of Finance, Malaysia. Department of Statistics, Malaysia

As the economy recovered from recession in 2010, the government needed to tighten its budget. Prudent measures were taken to reduce the deficit, which had ballooned to 7 per cent of GDP in 2009, the highest recorded in the past two decades. The total allocation for government expenditure was reduced from 213.2 billion MYR in 2009 to 191.5 billion MYR in 2010, a reduction of 10 per cent in terms of the total budget. The allocation for higher education experienced a reduction of 7.7 per cent compared to 2009, but in terms of its share in the total government expenditure, the percentage remained almost unchanged in 2010 compared to 2009, i.e. 6.6 per cent in 2009 and 6.8 per cent in 2010. This reduction in the allocation for 2010 could not be avoided as the government needed to reduce its fiscal deficit in order to stabilise the economy. Federal government expenditure was expected to decline further in 2011.

Table 3 shows the allocated and actual expenditure (operating and development) for higher education (2007-2010). As stated earlier, there was a significant cut in the allocated expenditure for 2008 made in 2007. Only the allocation for development expenditure was affected, however, which suffered a major reduction of 42 per cent. The allocation for operating expenditure continued to increase.

When the economy went into recession in 2009, more funds were allocated for development. There was a huge increase in the total expenditure for higher education, of 47.8 per cent, compared with the year before. The allocation for operating expenditure increased by 29.6 per cent, and the allocation for development expenditure rose by a whopping 113 per cent compared to 2008. This huge leap in the amount allocated for development in higher education for 2009 could be attributed to the delayed development projects, which were hampered by the reduction in allocations in 2008, and also to the acceleration of project implementation to boost the economy.

**Table 3: Allocated and actual operating and development expenditures in higher education (2007-2010)**

Allocated operating and development expenditure in higher education (MYR)

	2007	2008	2009	2010*
Allocated operating expenditure	6,604,979,588.91 (64.8%)	7,468,957,549 (78.2%)	9,682,119,800 (68.6%)	8,523,022,000 (65.4%)
Allocated development expenditure	3,595,000,000.00 (35.2%)	2,078,000,000 (21.8%)	4,433,556,000 (31.4%)	4,500,000,000 (34.6%)
Total	10,199,979,588.91	9,546,957,549	14,115,675,800	13,023,022,500

Actual operating and development expenditure in higher education (MYR)

	2007	2008	2009**	2010
Actual operating expenditure	6,525,582,188.81 (72%)	7,310,964,246.33 (80%)	6,347,690,100.58 (64%)	-
Actual development expenditure	2,521,359,961.13 (28%)	1,781,265,287.93 (20%)	3,549,731,557.75 (36%)	-
Total	9,046,942,149.94	9,092,229,534.26	9,897,421,658.33	

**Notes:** \*estimated value, \*\* as of 31 October 2009

**Source:** Ministry of Higher Education

Overall, about 90 per cent of the actual expenditure for higher education went to the public universities. The balance went to the polytechnics and the community colleges. Table 4 depicts the actual operating and development expenditure by type of public HEIs.

Development expenditure for public universities and polytechnics doubled in 2009 compared to the year before (though the figures only show the actual expenditure until October 2009). A fall in the development expenditure for community colleges was partly supplemented by the 30 million MYR allocated under the second stimulus package.

**Table 4: Actual operating and development expenditures by types of public HEIs (2007-2009)**

Operating expenditure (MYR)	Types of HEIs	2007	2008	2009~
	Public universities		5,919,955,787.51	6,682,038,945.00
Polytechnics		413,822,558.07	435,422,893.00	396,354,892.00
Community colleges		191,803,843.23	193,502,408.33	140,731,317.08
Total		6,525,582,188.81 (72%)	7,310,964,246.33 (80%)	6,347,690,100.58 (64%)
Development expenditure (MYR)	Public universities	2,159,797,993.34	1,452,403,932.80	3,050,890,000.00
	Polytechnics	280,111,925.01	215,146,231.20	413,435,018.45
	Community colleges	81,450,042.78	113,715,123.93	85,406,539.30
	Total	2,521,359,961.13 (28%)	1,781,265,287.93 (20%)	3,549,731,557.75 (36%)
Grand total		9,046,942,149.94	9,092,229,534.26	9,897,421,658.33

**Note:** ~ as of 31 October 2009

**Source:** Ministry of Higher Education

## 4.2 Impact on demand for higher education

In 2009 there was an overall increase, compared to 2008, in student admissions and total enrolment in the higher education institutions in Malaysia. Student admissions increased in both postgraduate and bachelor's degree programmes but admissions to postgraduate studies (PhDs and master's degrees) increased at a higher rate compared to admissions to bachelor's degree programmes. This could be because, with increasing unemployment and job insecurity during the crisis, more people in the labour force opted to further their studies. But the higher percentage of admissions for postgraduate programmes compared to bachelor's degree programmes was also a result of the Research University (RU) policy implemented by universities that were conferred RU status in 2007 (Universiti Malaya, Universiti Sains Malaysia, Universiti Kebangsaan Malaysia and Universiti Putra Malaysia). The RU universities focus on providing more places for postgraduate students.

**Table 5: Admissions to HEIs 2008 and 2009**

Public institutions			Private institutions		
Level of studies	2008	2009 (% change)	Level of Studies	2008	2009 (% change)
PhD	3,644	4,150 (13.9)	PhD	303	649 (114.2)
Master's degree	16,158	18,886 (16.8)	Master's degree	2,924	4,768 (63.1)
Postgraduate diploma	1,779	4,557 (99.9)	Advanced diploma		99
Bachelor's degree	75,127	80,006 (6.6)	Bachelor's degree	43,261	55,886 (29.2)
Diploma	26,255	33,633 (28.1)	Diploma	91,483	64,735 (-39.1)
Matriculation	6,957	10,500 (50.9)	Certificate	47,875	42,060 (-12.1)
Professional	450	497(10.4)			
Others	2,370	1,241 (-47.6)			
Subtotal	133,100	153,470 (15.3)	Subtotal	185,846	168,677 (-9.2)

**Source:** Ministry of Higher Education, Malaysia

The trend of increasing student admissions in public HEIs between 2006 and 2010 (Table 6) is mainly a result of the large intake of students at Universiti Teknologi MARA (UiTM). With its 16 campuses, UiTM aims to increase its student enrolments to 200,000 by 2020.

**Table 6: Student intake and output by public HEIs (2008-2010)**

HEIs	2006		2007		2008		2009		2010	
	Intake	Output								
UM	7,594	6,735	9,398	6,517	6,975	6,570	6,671	6,735	5,893	6,710
UKM	7,383	6,454	8,508	6,828	5,837	7,744	5,933	7,782	6,008	7,760
USM	7,511	7,035	7,169	7,140	7,405	7,025	7,553	8,501	10,157	7,401
UPM	6,764	7,027	8,531	7,921	7,859	7,846	7,878	6,915	7,772	6,999
UTM	5,325	6,350	7,473	8,369	5,626	9,435	4,872	9,323	3,905	6,947
UUM	6,188	5,760	8,957	4,260	8,098	6,954	5,982	6,686	5,885	6,955
UIA	2,981	3,643	8,455	3,778	4,441	3,555	4,766	3,979	5,180	5,085
UNIMAS	2,004	1,244	2,197	1,564	3,295	1,470	3,736	1,682	3,930	1,867
UMS	4,424	3,612	5,325	4,155	5,299	3,928	5,400	4,415	5,700	4,700
UPSI	3,306	3,621	4,181	3,785	2,200	2,931	2,800	4,194	3,200	2,719
UiTM	27,959	24,423	44,874	24,819	60,378	32,615	69,346	36,308	76,533	40,789
UDM	1,354	-	1,308	-	1,551	1,092	1,900	1,175	1,760	1,120
USIM	1,079	542	1,713	567	1,853	306	1,758	718	2,225	873
UTHM	1,604	1,387	2,559	1,576	2,435	1,951	3,443	1,958	3,665	1,746

HEIs	2006		2007		2008		2009		2010	
	Intake	Output	Intake	Output	Intake	Output	Intake	Output	Intake	Output
UMT	479	1,305	1,869	1,531	1,955	1,570	2,375	1,633	2,506	1,750
UTeM	1,486	996	1,564	1,353	2,001	1,442	2,662	1,591	2,914	1,520
UNIMAP	1,137	111	1,445	563	2,120	655	2,080	953	2,670	1,298
UMP	1,202	177	2,274	722	2,030	735	2,200	1,204	2,580	951
UMK	-	-	287	-	344	-	629	-	730	-
UPNM	-	-	752	-	525	255	574	433	833	340
Total	89,798	80,422	128,839 (43.5%)	85,448 (5.35%)	132,047 (2.5%)	96,434 (12.9%)	142,558 (8%)	103,595 (7.4%)	154,046 (8.1%)	104,941 (1.3%)

**Legend:** - no student intake or output

**Source:** Ministry of Higher Education, Malaysia

Overall, there was an increase of 15.3 per cent in student admissions to public HEIs and a 9.2 per cent reduction in admissions to private HEIs. The preference for public HEI programmes over private HEI programmes during the crisis is likely to be due to the lower costs of public HEIs.

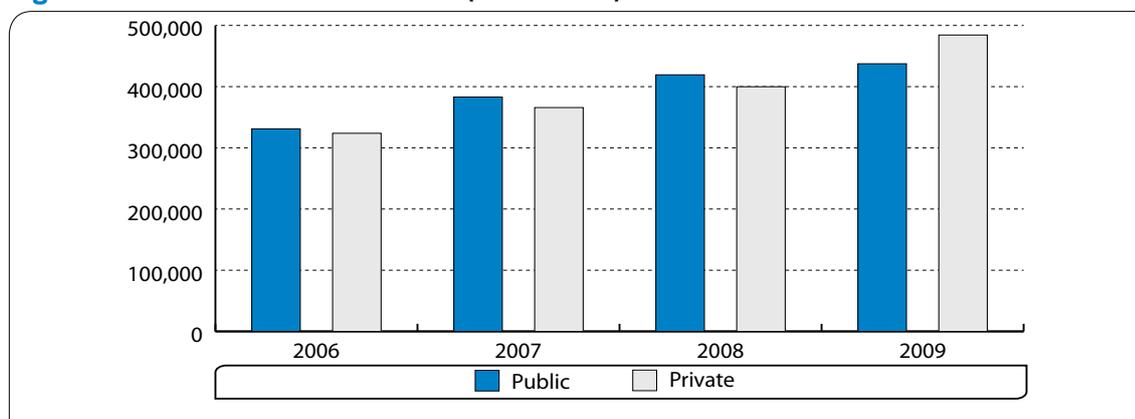
Student admissions to diploma programmes increased in the public HEIs, with an increase of about 100 per cent in the postgraduate diploma intake and of 28 per cent in the diploma intake. The availability of scholarships and other financial assistance were some pull factors for student enrolment in postgraduate diploma programmes in the academic year 2009/10.

**Table 7: Enrolment in HEIs, 2008 and 2009**

Public institutions			Private institutions		
Level of studies	2008	2009	Level of Studies	2008	2009
PhD	12,243	14,669	PhD	1,331	1,812
Master's degree	36,094	44,880	Master's degree	8,540	12,472
Postgraduate diploma	2,956	6,230	Advanced diploma		1,584
Bachelor's degree	270,156	272,012	Bachelor's degree	151,591	212,836
Diploma	83,833	82,208	Diploma	177,773	191,083
Matriculation	10,242	12,115	Certificate	60,617	63,907
Professional	1,249	1,426	Professional		683
Others*	2,561	3,880			
Subtotal	419,334	437,420	Subtotal	399,852	484,377

**Source:** Ministry of Higher Education, Malaysia

**Figure 3: Student enrolment in HEIs (2006-2009)**

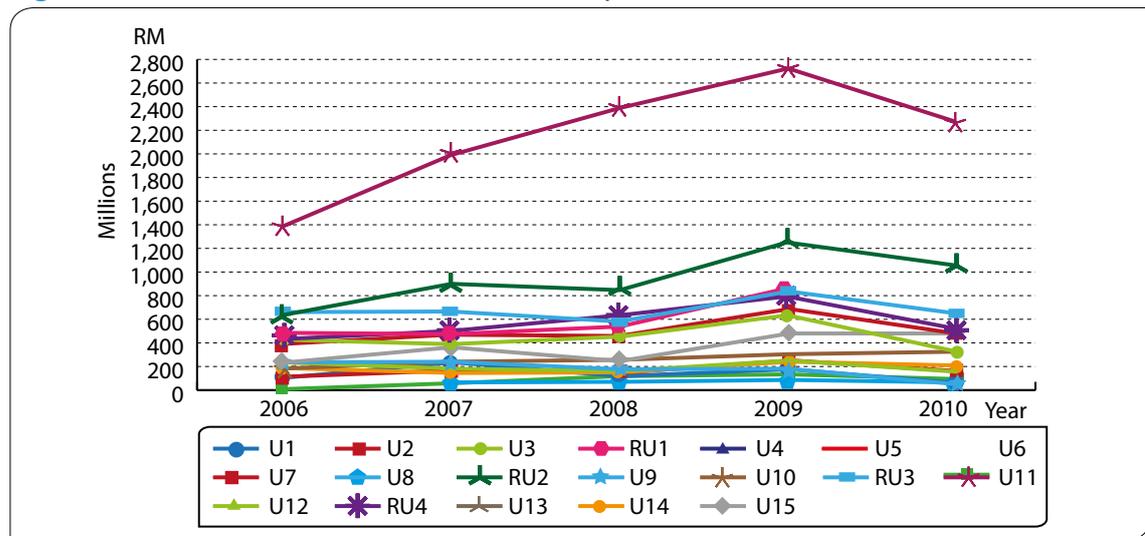


## 4.3 Coping strategies of public universities

A survey was carried out to gauge how the public universities coped with the latest economic crisis. Out of the 20 public universities in Malaysia, 19 responded to the survey. Respondents included bursars, human resources managers and academic programme administrators.

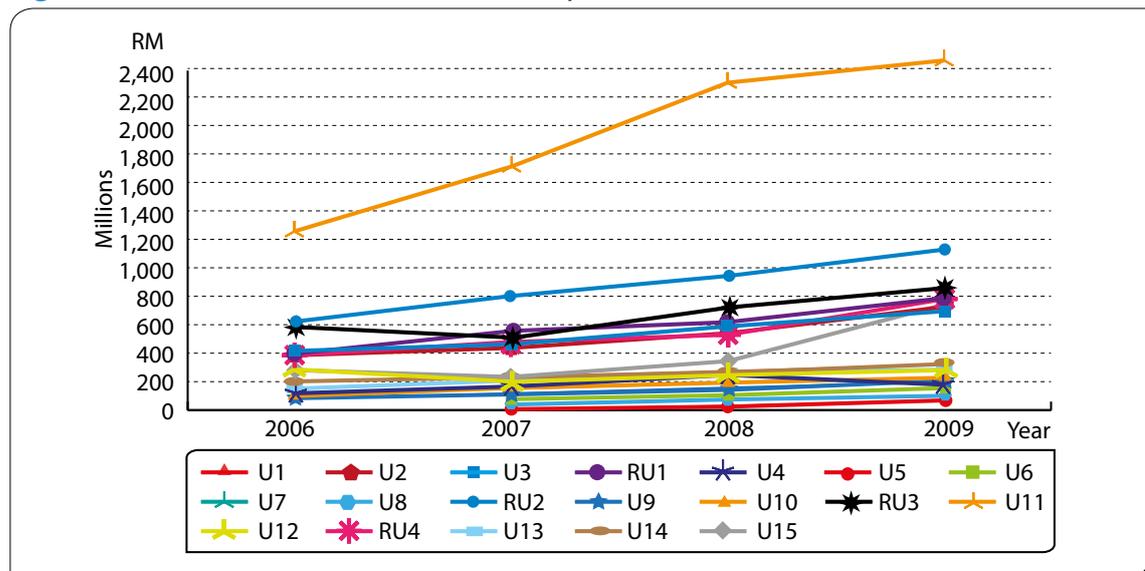
According to the responses, the total allocated and actual expenditures for public universities increased in 2009. This was a result of the expansionary fiscal policies implemented in response to the crisis (see Figures 4 and 5). More funds were reallocated for project implementation to boost the economy. In 2010, however, expenditure was substantially reduced, including the allocations to public universities.

**Figure 4: Public universities - total allocated expenditure, 2006-2009**



**Note:** For RU1, RU2, RU3 and RU4, allocated expenditures for 2006-2010 are lumped with allocation for Research University (RU).

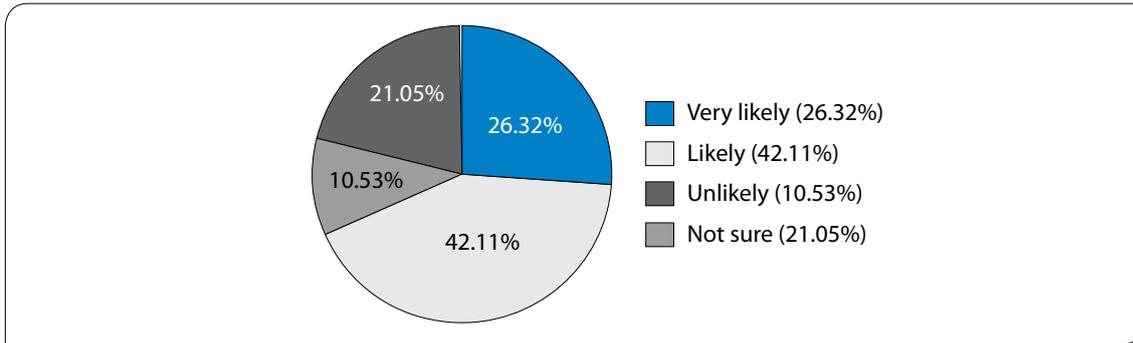
**Figure 5: Public universities - actual total expenditure, 2006-2010**



**Note:** RU1, RU2, RU3 and RU4, allocated expenditures for 2006-2010 are included in the allocation for research.

About 69 per cent of respondents were of the opinion that there would be further reductions in the expenditure allocated for their universities in 2011 (see Figure 6).

**Figure 6: How likely will there be a cut in the 2011 allocation for your university?**

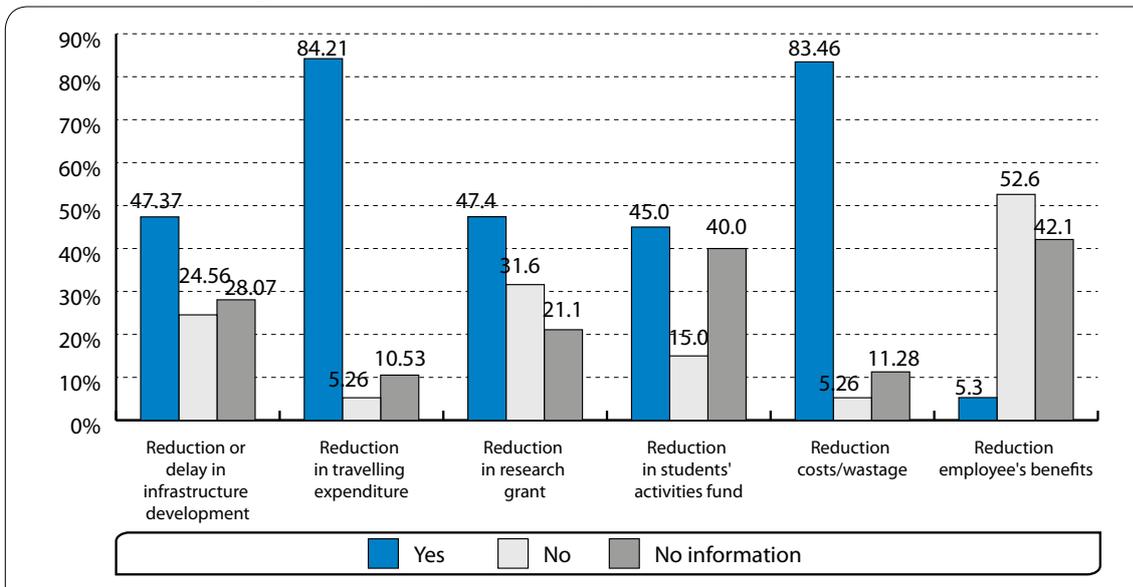


As noted above, in the second stimulus package 280 million MYR was allocated for higher education. According to the survey findings, however, only about 29 per cent of the public universities (four out of the 19 universities participating in the survey) received funds from the package. Of the four recipients, three have utilised the funds to provide financial aid to postgraduate students. One university used the allocation for the purchase of equipment.

The survey found that in Malaysia, fees and student intake in the public universities were not directly affected by the crisis. From the feedback of respondents, it appears that programmes and faculties in the public universities were also not directly affected. One can expect some impacts on programmes offered and size of faculties in the long term, however.

Cost-saving measures and income generating activities were taken by most of the universities to deal with the reduction of budget allocation in 2010. As shown in Figure 7, about 84 per cent of the universities reduced their travelling expenditure and 83.46 per cent took steps to cut cost and reduce wastage. About 47 per cent of the universities put on hold their infrastructure development plans and the same percentage reported that they substantially reduced research grants. In 45 per cent of public universities, funds allocated for students' activities were reduced substantially.

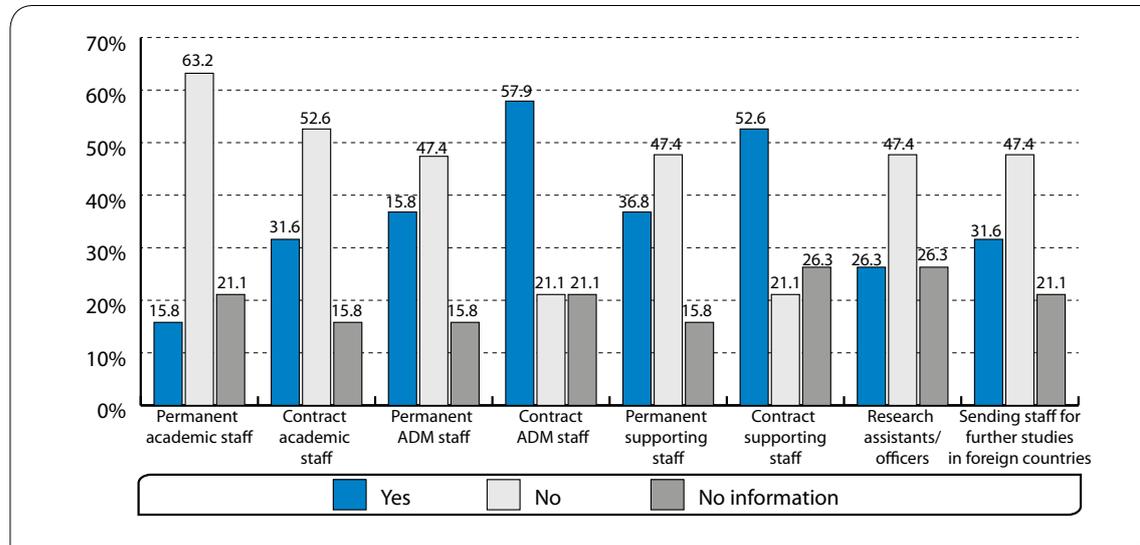
**Figure 7: Cost-saving measures by the bursary**



Another cost-saving measure taken by the public universities was reduction in staff recruitment. As indicated in Figure 8, the recruitment of contract staff under administrative, supporting and academic categories was severely affected. About 57 per cent of the surveyed universities stated that they reduced the recruitment of contract administrative staff and 52.6 per cent reduced the recruitment of supporting staff. About 31 per cent of the universities reported that they decreased

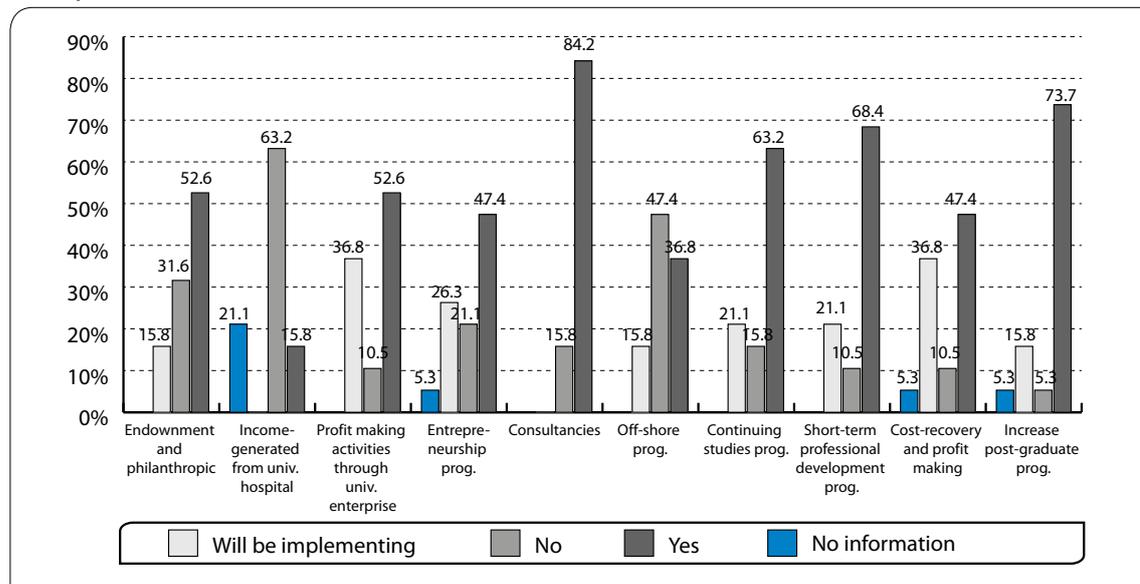
the employment of temporary contract academic staff. Thus, employment of administrative and supporting staff was reduced more than employment of academics. Another area of university activities that did not escape cost cutting measures was the overseas staff training programme.

**Figure 8: Cost-saving measures by the human resources department**



In the public universities of Malaysia, the fees charged to undergraduates, the level of student intake and, to a certain extent, the programmes offered, are centrally controlled. Thus, increasing fees for undergraduates, a strategy commonly used elsewhere to raise revenue, could not be implemented in the public universities. About 73 per cent of the universities reported increasing tuition fees for postgraduates in order to reduce their budget deficits. But many universities also developed innovative and entrepreneurial income generating activities. About 84 per cent of the universities reported consultancy activities as a potential source of income. In addition, universities reported short-term professional development (68.4 per cent), continuing studies programmes (63.2 per cent) and off-shore programmes (36.8 per cent) as means of increasing their revenue. Figure 9 illustrates the types of income generating activities implemented in public universities.

**Figure 9: Types of income generating activities implemented in public universities in Malaysia**



About 50 per cent of the universities offered entrepreneurship programmes and were also involved in profit-making activities through their corporate or private entities and enterprise units. Furthermore, programmes to solicit donations, endowments and other philanthropic gestures to increase funds were explored by more than 50 per cent of the surveyed universities.

## 5. Conclusion

The government reacted to the 2009 financial crisis by introducing stimulus packages to restore aggregate demand in the economy and restore confidence. The education sector benefited from project implementation under the expansionary fiscal policy introduced during the crisis.

The budget allocated for the public universities increased during the 2009 crisis. But in 2010 government expenditure was reduced, including the education budget, and all of the public universities experienced a reduction in their allocations. Accordingly, the universities had to take steps to cut costs and increase their income-generating activities. Various measures were taken by the public universities to cut costs, including reducing staff numbers and decreasing operating and development expenditures.

The low impact of the crisis on higher education should not make the education sector complacent. The 2009 economic crisis may have long-term effects and could present future challenges in the education sector. The budget cut has indicated that the government can no longer provide the level of funding previously given. Given that Malaysian HEIs need to continue to nurture a culture of excellence, guarantee access to education and expand services to meet the ever growing demand for higher education, public universities need to review their budgets and be very prudent in their expenditures. Furthermore, public universities need to look for alternative sources of funding and generate their own income. Building new partnerships with businesses and commercializing programmes are among options to fund research projects and cover costs.

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# New Zealand

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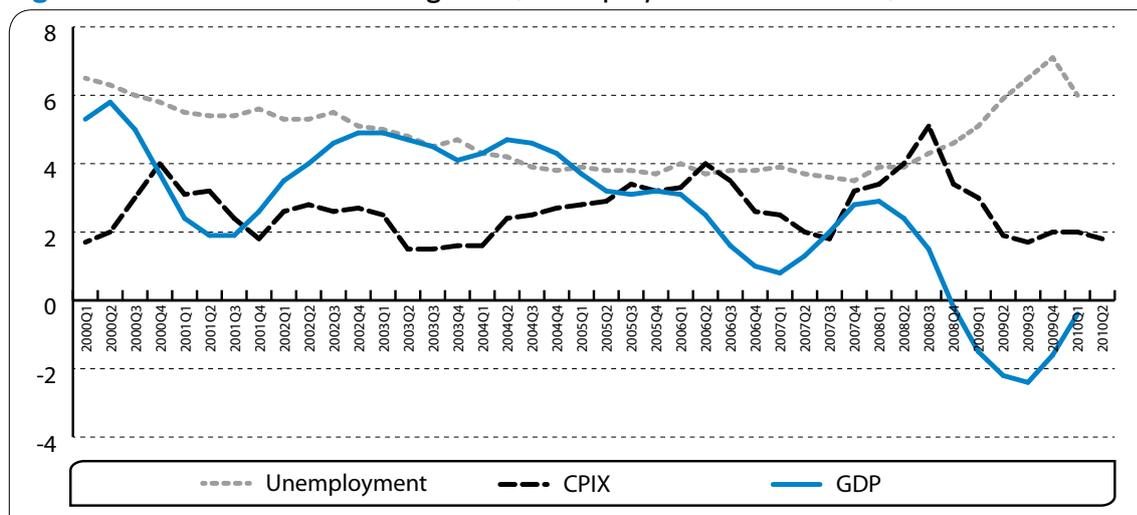
# 1. Impact on New Zealand's economy and society

## 1.1 Background

New Zealand has a land mass of 268,000 square kilometres, broadly comparable with that of Japan, Italy and the United Kingdom (UK), but with a population of only 4.3 million. It has a small, very open economy, with no tariffs on imported goods. Exports account for approximately 25 per cent of gross domestic product (GDP). Per capita GDP (at purchasing power parity exchange rates) was 29,149 United States dollars (USD) in 2009, slightly below the OECD average of 33,023 USD.<sup>26</sup>

Economic growth in New Zealand began to slow sharply after the middle of 2008 as the global financial crisis began to unfold and has been negative each quarter since the fourth quarter of 2008 (2008Q4). The latest data for 2009Q4 showed the real economy continuing to contract by -1.6 per cent annually. Unemployment rose sharply over the period of the recession, from under 4 per cent at the start of 2008 to almost 8 per cent in early 2010. Significantly for the higher education sector, unemployment rates are highly correlated with age, with those aged between 15 and 19 having the highest unemployment rate, of 25.2 per cent. Those aged between 20 and 24 years old have the next highest rate, at 11.4 per cent, and those aged between 45 and 50 years have the lowest rate, at 3.5 per cent (figures for March 2010).<sup>27</sup> Inflation reached 5.3 per cent in 2008Q3 at the peak of the global commodity price boom and has since fallen back to around 2 per cent. Figure 1 shows the performance of the New Zealand economy over the last decade.

**Figure 1: New Zealand economic growth, unemployment and inflation, 2000-2009**



**Source:** Reserve Bank of New Zealand

The structure of the New Zealand economy is comparable to most developed countries, with the primary sector accounting for 7.4 per cent of GDP, the manufacturing sector 19.7 per cent of GDP and the services sector 69.9 per cent of GDP.<sup>28</sup> Agricultural products (dairy, sheep meat, wheat, barley, vegetables wool, beef and fish) remain important export industries.

<sup>26</sup> Organisation for Economic Cooperation and Development. 2001. *StatExtracts*. [http://stats.oecd.org/Index.aspx?DatasetCode=SNA\\_TABLE1](http://stats.oecd.org/Index.aspx?DatasetCode=SNA_TABLE1) (Accessed 11 July 2011).

<sup>27</sup> Statistics New Zealand. 2010. *Household Labour Force Survey: March 2010 quarter*. [http://www.stats.govt.nz/browse\\_for\\_stats/income-and-work/employment\\_and\\_unemployment/HouseholdLabourForceSurvey\\_HOTPMar10qtr.aspx](http://www.stats.govt.nz/browse_for_stats/income-and-work/employment_and_unemployment/HouseholdLabourForceSurvey_HOTPMar10qtr.aspx) (Accessed 11 May 2010).

<sup>28</sup> 2009 figures. Figures do not sum to 100% (Statistics New Zealand)

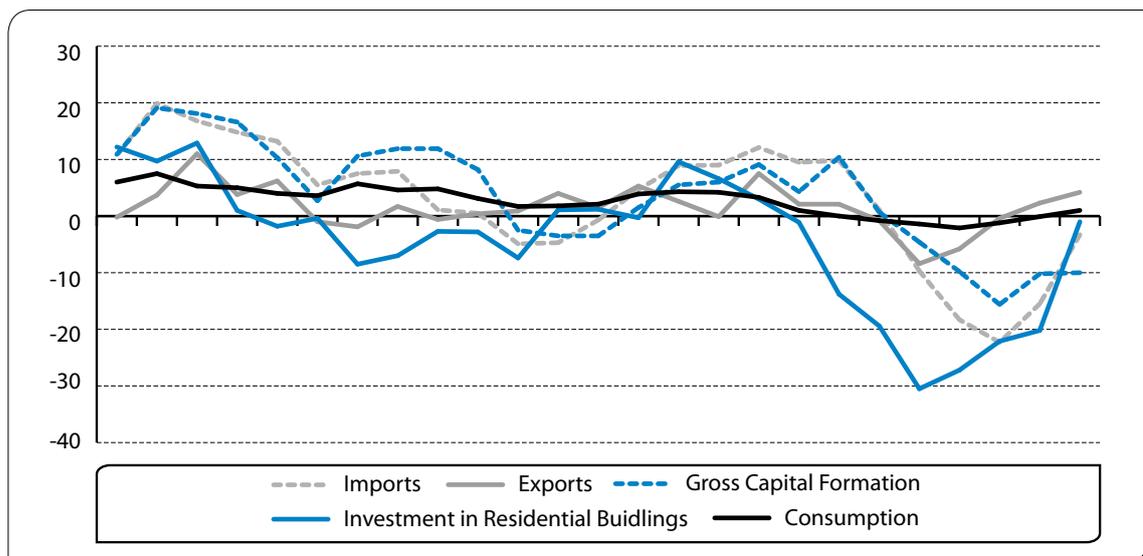
In contrast to the United States (US) and the UK, the New Zealand banking system (which is almost entirely owned by Australian banks) was largely unaffected by the US sub-prime crisis. While a temporary government-backed retail deposit guarantee scheme was introduced in October 2008 to maintain confidence in the financial system, it was due to be closed in October 2010.

## 1.2 Channels of impact

The global financial crisis impacted New Zealand through two main channels: a slump in exports to the country's main trading partners, Australia, China, Japan and the US, and a sudden loss of consumer and business confidence in the last quarter of 2008, as the scale of the financial crisis in the US and Europe became apparent.

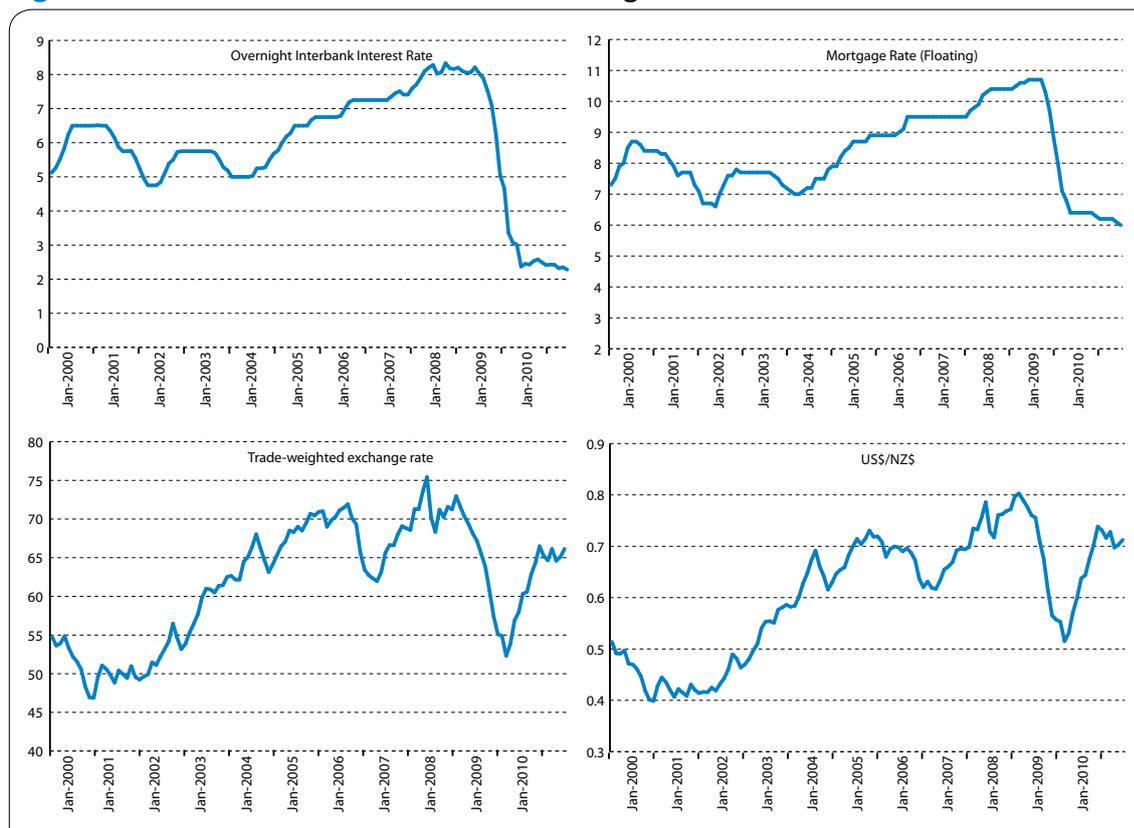
Export growth halted abruptly in 2008Q2, contracting each quarter until the second half of 2009. Both investment in residential housing and gross capital formation contracted severely from the beginning of 2008. The housing market had already begun falling from 2008Q1, in response to higher interest rates designed to cool house prices, but gross capital formation remained strong until 2008Q3, when it shrank at annualised rates of up to 15.6 per cent in 2009Q2. Figure 2 shows the behaviour of the components of aggregate demand between 2003 and 2009.

**Figure 2: New Zealand annualised changes in components of aggregate demand, 2003-2009**



**Source:** Statistics New Zealand

New Zealand experienced high real interest rates until the end of 2008. These rates were set by the Reserve Bank to restrain inflationary pressures and maintain the attractiveness of the currency to underpin overseas borrowing. Over the period between 2000 and 2008, the New Zealand dollar appreciated significantly against the US dollar and all other major trading currencies (see trade-weighted exchange rate). The onset of the global financial crisis caused an initial flight from “exotic” currencies like the New Zealand dollar to the US dollar, causing a fall from a peak of 0.8027 USD in March 2008 to a low of 0.5151 USD by February 2009. As all countries, including New Zealand, dramatically cut interest rates in the second half of 2008, the scale of the recession and the sustained monetary easing required in the United States became clear, and from February 2009 onwards the New Zealand dollar quickly recovered. Figure 3 shows the development of interest rates and exchange rates over the last decade.

**Figure 3: New Zealand interest rates and exchange rates, 2000-2010**

Source: Reserve Bank of New Zealand

## 2. Impact on government revenue and expenditure

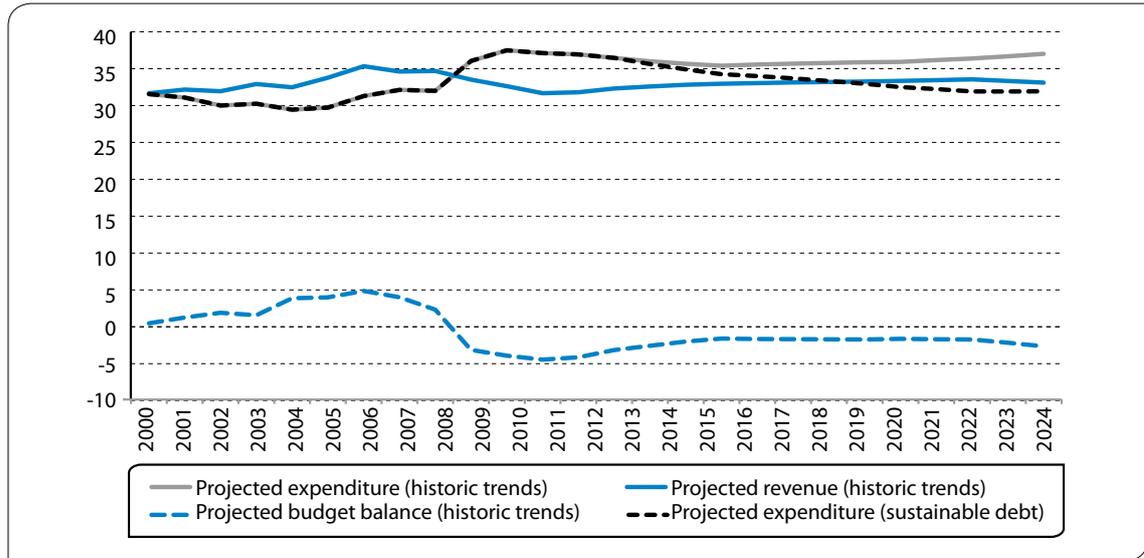
In November 2008 the scale of the global financial crisis became apparent. In early 2009, the government followed the international trend of developing a fiscal stimulus package, with tax cuts and targeted public spending initiatives designed to restore confidence and prevent a deep recession. These included extra funding for tertiary education in the May 2009 budget, most notably 4 million New Zealand dollars (NZD) for universities so that they could employ students as research assistants over the 2009/10 summer vacation, when jobs for students were expected to be very scarce. The 2009 budget also included an extra 2 million NZD for 2009/10 to support recruitment of international students.<sup>29</sup>

As the economy adjusted to the external shocks throughout 2009, the Treasury began to re-evaluate the impact on its long-term financial position of both the operation of automatic stabilisers and the structural budget changes that had been made to reflate the economy. Under the Finance Act 1989, the Treasury is required to publish a statement at least every four years forecasting the public finances over a 40 year horizon. The "Statement on the Long-term Fiscal Position" was published in October 2009.<sup>30</sup> After almost a decade of persistent budget surpluses (between 2000 and 2008), the fiscal position deteriorated sharply in 2009 and, forecasting government expenditure and revenue on the basis of historic trends, the Treasury projected persistent deficits from 2009 onwards (see Figure 4).

<sup>29</sup> Office for the Minister for Tertiary Education. 2008. *Tertiary Education Initiatives*. <http://www.minedu.govt.nz/theMinistry/Budget/Budget2009/EducationInitiatives.aspx#TertiaryEducation> (Accessed 8 May 2010).

<sup>30</sup> New Zealand Treasury. 2009. *Challenges and Choices: New Zealand's Long-term Fiscal Statement*, October, <http://www.treasury.govt.nz/government/longterm/fiscalposition/2009/lfs-09.pdf> (Accessed 01 May 2010).

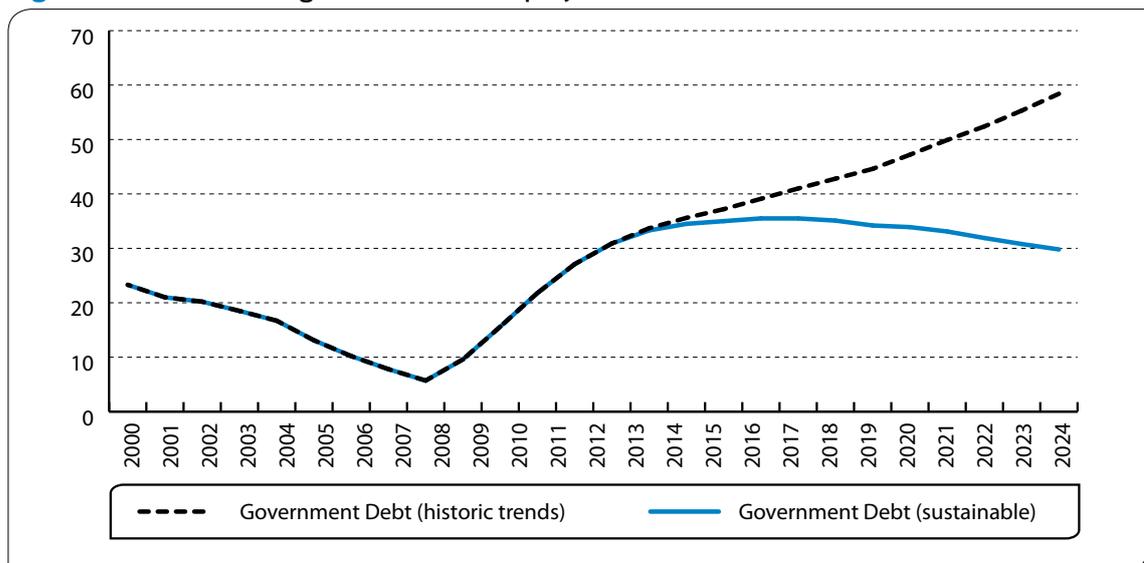
**Figure 4: New Zealand government finances, 2000-2024 (% GDP)**



**Source:** New Zealand Treasury

The Treasury then used the projected budget balance to calculate the projected ratio of government debt to GDP. On the basis of projecting forward historic trends in government expenditure and revenue, the Treasury forecast the debt to GDP ratio to balloon from the internationally low level of 5.6 per cent in 2008 to reach 58.4 per cent of GDP by 2025 and 223.4 per cent by 2050 (see Figure 5). The Treasury also estimated what it regarded as a sustainable government debt to GDP ratio. This analysis compellingly underpinned the government’s new medium-term fiscal strategy, which is designed to steadily reduce public expenditure from 37.8 per cent of GDP in 2010 to 31.8 per cent of GDP by 2025, in order to put the government’s debt on a sustainable trajectory without requiring major increases in taxation. The planned trend for public expenditure as a percentage of GDP is shown by the broken line in Figure 4 (projected expenditure (sustainable debt)).

**Figure 5: New Zealand government debt projections**



**Source:** New Zealand Treasury

Achieving a downward trend in public expenditure as a percentage of GDP over the medium term, in an economy which is ageing and putting growing demands on the social welfare and public health care systems, implies increasingly deep structural cuts in other areas of spending, including

higher education. While the government is intent on allowing automatic stabilisers to increase government debt in the short term, for fear of destabilising economic recovery, virtually all public spending programmes are coming under close scrutiny and there has already been a contraction in the number of jobs in New Zealand's public sector.

## 3. Impact on higher education

### 3.1 Overview

Universities in New Zealand are essentially dependent on three main sources of revenue: government (tuition subsidies and funding for research), domestic households (domestic tuition fees – that can be paid through interest-free loans from the government) and international students (who pay full-cost tuition fees).

Until the global financial crisis, higher education policy was geared towards raising participation rates, especially amongst under-represented groups. Tuition subsidies were based on the number of students enrolled, encouraging universities to expand domestic enrolments, and the government paid allowances and made loans to students to cover tuition fees and living costs. Universities used international student recruitment to grow and diversify their revenue base.

In the period immediately before the global financial crisis, it had already become clear that this financial model was not sustainable. The government was unable to control the expansion of enrolments in tertiary education, which automatically led to larger outlays on tuition subsidies and student allowances and loans. There was also growing concern that allowing institutions to claim tuition subsidies for whatever number of student they enrolled was leading some parts of the tertiary sector to develop low cost (but high margin) courses with inadequate learning outcomes and low completion rates. In 2007, the government introduced the concept of "investment plans", under which each tertiary institution, including the universities, was required to negotiate with the Ministry of Education and agree a fixed number of enrolments, by subject and level, which would be eligible for government funding.<sup>31</sup> This process led to an almost immediate reduction in enrolments in some parts of the tertiary sector, but the universities all negotiated agreements that envisaged some limited growth in domestic enrolments.

While this change reduced the incentive for universities to enrol more than the agreed number of students, the entitlement of high school students with University Entrance (UE) certification and of adults aged 20 years or more to enter university, meant that, in practice, it was impossible for universities to control total enrolments. The onset of the global financial crisis led to a surge in demand for university places in 2009, which resulted in virtually all the New Zealand universities being "over-enrolled". While the government did not have to provide tuition subsidies for the additional students, it was obliged to provide allowances and loans to the extra students on an entitlement basis.

A decline in international enrolments had an adverse effect on university finances. Thus, the ability of universities to cope with unfunded over-enrolments is limited. Three of the country's eight universities (Auckland, Otago and Victoria) have used their right to limit entry to specific degrees to limit entry to all undergraduate degrees in the institution, a move that has caused considerable controversy and potentially threatens to erode what is widely regarded as a civil right in New Zealand. Under considerable fiscal pressure, the government is planning to make real terms cuts in tuition subsidies in 2011 and to revise regulations to limit students' access to loans.

31 New Zealand Cabinet. 2006. "Cabinet Policy Committee Minute of Decision: A New Tertiary Funding System", Cabinet Office <http://www.tec.govt.nz/Documents/Reports%20and%20other%20documents/cabinet%20paper-tertiary-reforms-a-new-tertiary-funding-system-June%202006.pdf> (Accessed 09 May 2010).

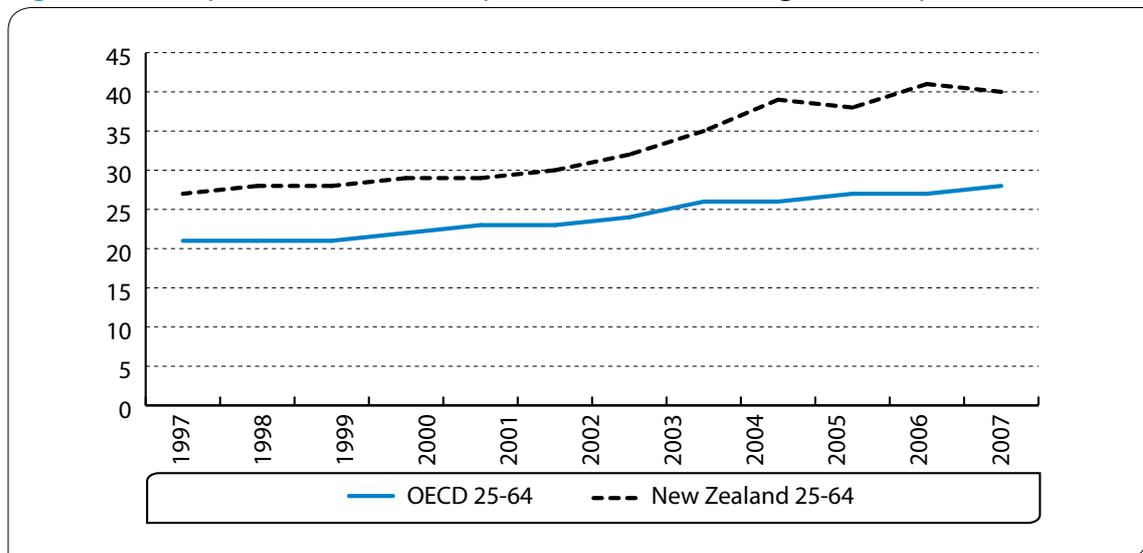
## 3.2 Education system, context and challenges

The New Zealand higher education system comprises eight public comprehensive universities, established from 1869 onwards. The system is well-regarded internationally, with five of the eight institutions ranked in the Times Higher Education–Quacquarelli Symonds (THE-QS) Top 500 World Universities Rankings<sup>32</sup> – a higher proportion than any other country. Students aged 16 to 19 are entitled to enrol at any university in the system, provided that they have reached the standard for University Entrance in the “National Certificate of Educational Achievement” (NCEA) delivered by high schools to students in the 16 to 19 age group.

Once students have reached the age of 20 years, regardless of prior educational achievement, they are entitled to enrol at any university. The 1989 Education Act states that “a person is eligible to be enrolled as a student at any institution...if the person is a domestic student [citizen or permanent resident] and...the person has attained the age of 20 years” (section 224, sub-sections 2(a) and 3(a)).<sup>33</sup> Under the Act, universities are permitted to “limit entry” to programmes with demonstrable capacity constraints (e.g. medicine and dentistry). The right of open entry for adults is widely cherished in New Zealand. It can be traced back to permitting returning servicemen to enrol without examination in university after the First World War.<sup>34</sup>

While participation rates have risen across the OECD in the ten years to 2007 (latest OECD data available), rates in New Zealand have grown even faster and are presently at 41 per cent, compared with the OECD average of 30 per cent. Figure 6 shows the percentage of adults between the ages of 25 and 64 years who have studied at tertiary level (i.e. universities and other tertiary institutions, including polytechnics) in New Zealand and the OECD member countries.

**Figure 6:** Participation rates in tertiary education for adults aged 25–64 years old



Source: OECD

32 Quacquarelli Symonds. 2009. *THE - QS World University Rankings 2009 - top universities*. <http://www.topuniversities.com/university-rankings/world-university-rankings/2009/results> (Accessed 07 May 2010).

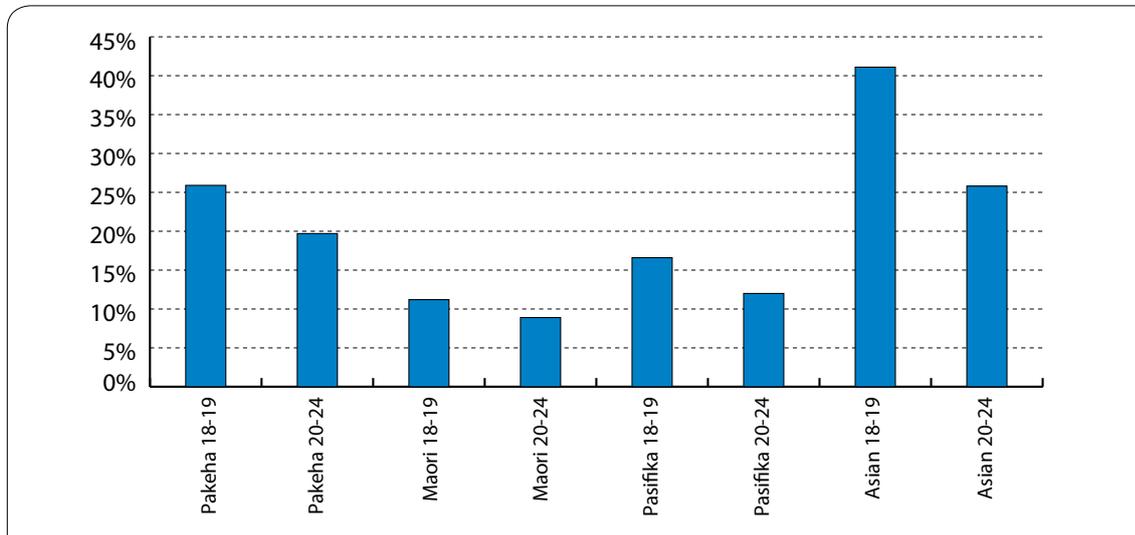
33 New Zealand Parliament. 2010. *Education Act 1989 No. 80* (as at 01 March 2010), Public Act. <http://www.legislation.govt.nz/act/public/1989/0080/latest/whole.html#d1m185116> (Accessed 02 May 2010).

34 Choat, D. 2010. “An End to Open Entry at Universities?” *Education Directions*. 19 February. <http://www.ed.co.nz/2010/02/19/an-end-to-open-entry-at-universities> (Accessed 11 May 2010).

McLaughlin, M. 2003. *Tertiary Education Policy in New Zealand*, New Zealand Ministry of Education <http://www.fulbright.org.nz/voices/axford/docs/mcLaughlin.pdf> (Accessed 11 May 2010). See McLaughlin (2003) for a long-term overview of the development of the system.

Participation rates for students in the 18-24 year age range vary considerably by ethnic group, however, being highest for New Zealanders of Asian and European (“Pakeha”) descent and lowest for Maori and Pacific Islanders (“Pasifika”). Given that the latter two groups are the fastest growing proportion of the population below the age of 25 years, these ethnic inequalities are a policy concern.

**Figure 7: Participation rates in New Zealand tertiary education, by ethnicity**



**Source:** New Zealand Ministry of Education

### 3.3 Financing mechanisms

New Zealand universities are autonomous public institutions by statute. The Ministry of Education funds universities directly through two main channels: the equivalent full-time student (EFTS) or “Student Achievement Component”, which is a grant for all full-time enrolled students (which varies with the subject studied) up to an enrolment ceiling agreed by annual negotiation between the Ministry and each university; and the “Performance-Based Research Fund” (PBRF) grant, based on a university’s score in six-yearly audits of research productivity.

The Ministry of Education also directly funds students, to support them through their tertiary studies, through a means-tested “student allowance” (a non-repayable maintenance grant for low-income students) and student loans. Student loans may be accessed through an organization called “Study Link” and used to pay tuition fees and living expenses. Under a policy announced by the previous Labour Government in 2005, student loans are interest-free for as long as the borrowers remain in New Zealand after graduation. In March 2010, the Minister for Tertiary Education revealed that after taking into account the “interest write-off, bad debts and administration costs, taxpayers are currently writing off about 48 cents in every dollar that is advanced on a student loan”.<sup>35</sup>

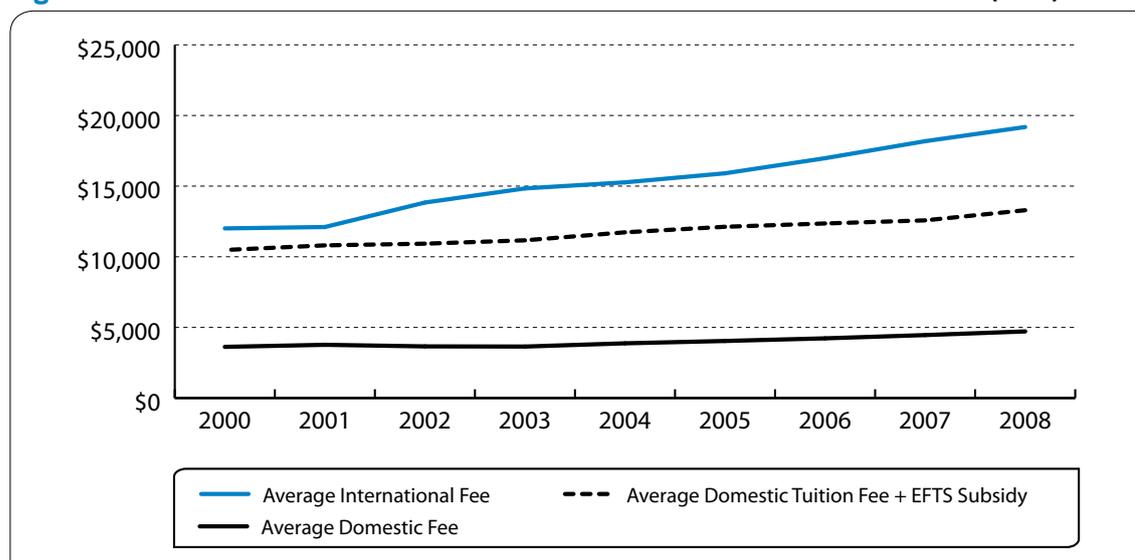
Universities are permitted to charge domestic students (i.e. permanent residents and New Zealand citizens) tuition fees, but these are regulated, both in terms of the maximum that can be charged for different types of degree (the “fee maxima”, which is reviewed annually by the government) and the size of any annual fee increase (up to the fee maxima limit), which is presently limited to 5 per cent per annum.

In contrast, universities are permitted to charge full cost-recovery fees for international students, for which there is neither an enrolment cap nor any Student Achievement Component. In 2008, the average international tuition fee in the New Zealand university system was close to 20,000

<sup>35</sup> Joyce, S. 2010 (a). “Speech to the Wellington Chamber of Commerce”, 9 March. <http://admin.beehive.govt.nz/speech/speech+wellington+chamber+commerce+4> (Accessed 10 May 2010).

USD, almost four times higher than the (regulated) domestic tuition fee. On a per capita basis in 2008, universities received a total of 13,293 NZD (domestic tuition fee plus Student Component Achievement) per domestic student, compared with an average international tuition fee of 19,193 NZD, representing a “premium” of 45 per cent on international enrolments. International students benefit, however, from the PBRF allocations made separately by the government to support research in universities. Support for research was paid until 2004 to universities, on a per capita domestic student basis, through the tuition subsidy.

**Figure 8: Domestic and international tuition fees in New Zealand universities (NZD)**

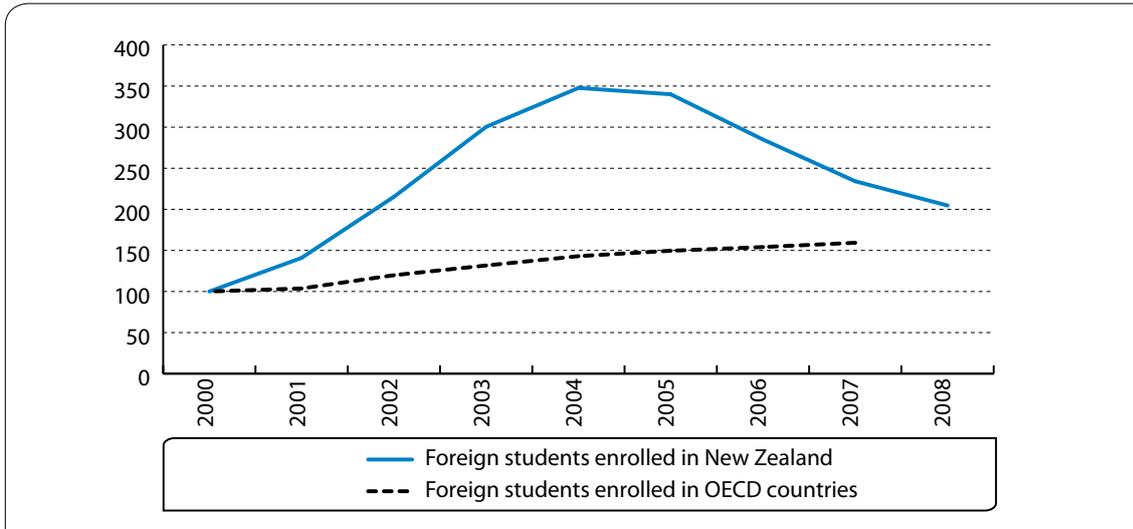


**Source:** New Zealand Ministry of Economy

The number of international students in New Zealand universities grew strongly in the first half of the past decade, with significant numbers of Chinese students being attracted to New Zealand by the prospect of studying in high schools and gaining guaranteed entry to university through the NCEA route. The result was a very rapid rise in the number and proportion of international students on New Zealand campuses in the years between 2000 and 2005. These numbers fell sharply after 2005, as a combination of an appreciating New Zealand dollar, growing competition from other countries (including continental Europe as the Bologna process led to greater provision of English-medium degrees) and the expansion of the higher education system in China all eroded New Zealand’s market position.

Across the OECD as a whole, the number of foreign students studying in OECD universities has grown steadily over the last decade, increasing by over 50 per cent to reach approximately 2.5 million by 2007 (latest OECD data available). In New Zealand, the growth in the period to 2005 was explosive, with the number of foreign students in New Zealand universities reaching 25,000 that year (18.2 per cent of total enrolments). At this point, the New Zealand university system had become the second most highly-internationalised in the world, after Australia. Since 2005, there has been an almost equally rapid collapse in international enrolments, although they now appear to be stabilising at a much higher level than in 2000 and closer to the OECD average. The latest figures show that there are some 15,000 international students in New Zealand universities (11.4 per cent of total enrolments). Figure 9 shows the trends in international student enrolments.

**Figure 9: Growth in international higher education enrolments (2000 = 100)**

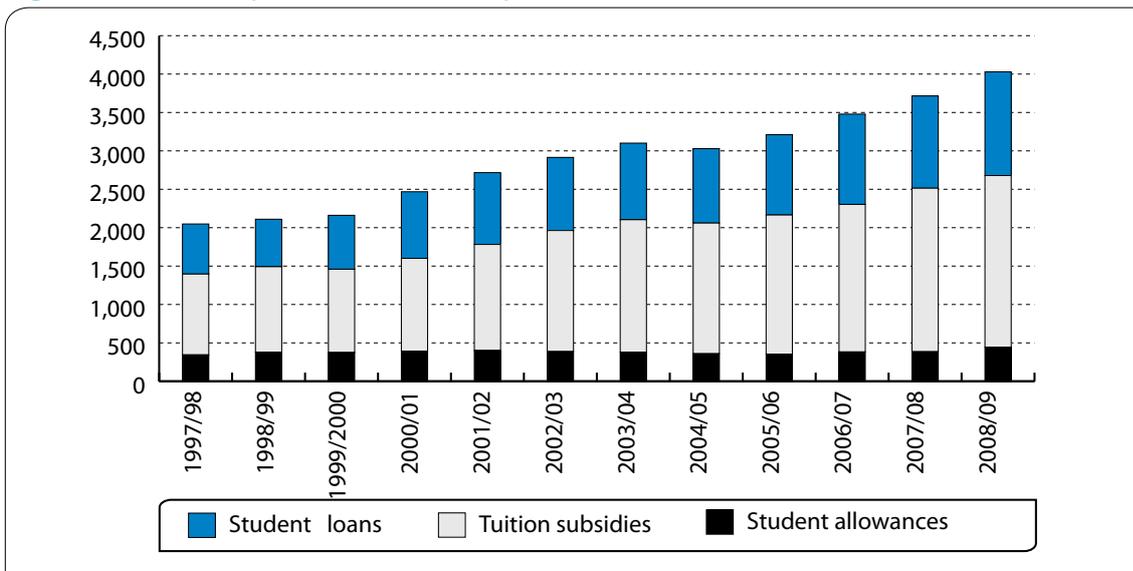


Sources: OECD; New Zealand Ministry of Education

### 3.4 Trends in expenditure on higher education

Trends in public expenditure on tertiary education (universities, polytechnics, etc.) in New Zealand indicate rapid growth in all three components of public expenditure (tuition subsidies, student allowances and student loans), with total spending on tertiary education growing by 100 per cent in nominal terms between fiscal years 1997/98 and 2008/09. This overstates the actual cost to the government of tertiary education because student loans move onto the balance sheet of the government as assets, although because of the current zero interest policy, the cost of each new 100 NZD loan to the government in net present value terms is only 48 NZD. Figure 10 shows the trends in public expenditure on tertiary education in New Zealand, highlighting the relative shares of each component of public expenditure.

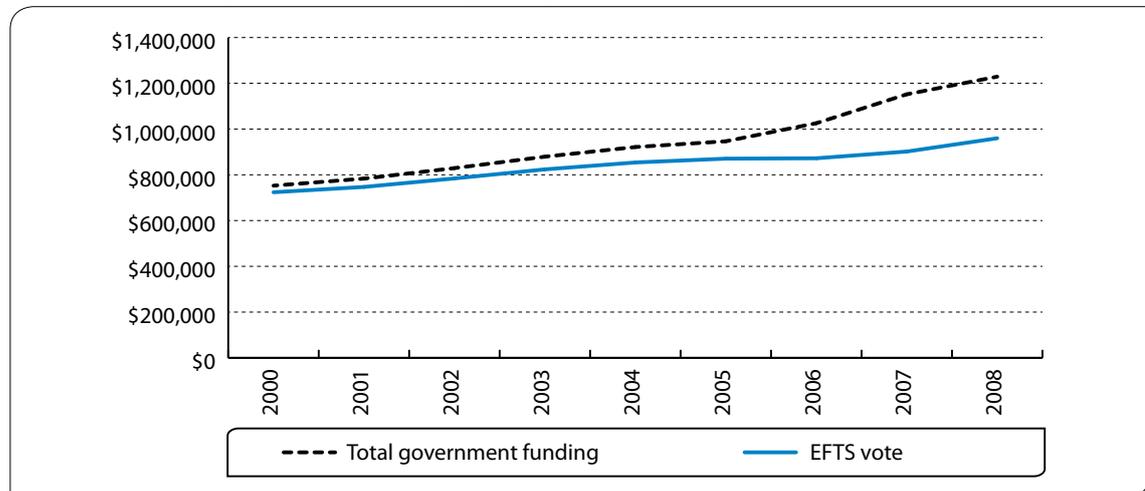
**Figure 10: Public expenditure on tertiary education in New Zealand**



Source: New Zealand Ministry of Education

As with tertiary education, public funding for universities has grown strongly over the period to 2008. Figure 11 shows the direct public expenditure on higher education, in the form of the EFTS (tuition subsidies) to universities and total government funding, with most of the difference being accounted for by the PBRF allocation to support research.

**Figure 11: Direct government funding to higher education**



**Source:** New Zealand Ministry of Education

By mid-2009, the policy environment had begun to shift, as it became apparent that a deep recession had been averted, but at the cost of structurally damaging the public finances for an extended period into the future. In late 2009, the Ministry of Education foreshadowed the new realities with the release of its Tertiary Education Strategy 2010-15, which noted that,

“In a tight fiscal environment, the Government is unable to provide significant funding increases to meet the growing demand for tertiary education. We will need to move funding away from low quality qualifications (such as those with low completion rates or poor educational or labour market outcomes) to fund growth in high-quality qualifications that benefit New Zealanders and contribute to economic growth.”<sup>36</sup>

In a speech in March 2010, the Minister for Tertiary Education announced that the government is “planning to move from a system that funds purely on enrolments to one that funds both on enrolments and results...[Results] will be measured using indicators like successful course completion, qualification completion and student progression”.<sup>37</sup> It is clear that the new system is intended to focus tuition subsidies on fewer, better-performing students. Without ending open access to university for students at 20 years plus, however, it is widely considered that this new policy may lead to perverse outcomes, in which assessments are made less demanding to lower failure rates, in order to enable institutions to avoid incurring penalties for low completion and progression rates. The government intends to ensure that its performance indicators take into account students’ ethnicity and socio-economic backgrounds to avoid the obvious danger of excluding these groups from tertiary education.

36 Office for the Minister for Tertiary Education. 2009. *Tertiary Education Strategy 2010-15*, p.10. <http://www.minedu.govt.nz/theMinistry/PolicyAndStrategy/~media/MinEdu/Files/TheMinistry/TertiaryEducationStrategy2010/TES2010to2015.pdf>.

37 Joyce, S. 2010a. “Speech to the Wellington Chamber of Commerce”, 9 March. <http://admin.beehive.govt.nz/speech/speech+wellington+chamber+commerce+4> (Accessed 10 May 2010).

In May 2010, the Minister confirmed that the government is also planning to reduce expenditure on student loans.<sup>38</sup> Noting that New Zealand spends 42 per cent of its tertiary budget on student support, compared to an OECD average of 19 per cent, he announced that eligibility to student loans is to be restricted. These changes were enacted as part of the annual budget statement on 20 May, with revisions to the scheme, which include requiring students to pass at least 50 per cent of their courses within any two year period to be eligible for loans, limiting undergraduates to a fixed number of years of eligibility, requiring new permanent residents to wait two years before they are eligible for loans and introducing full cost recovery administration fees payable by those with student loans.

Given the government's need to constrain public expenditure and the continuing pressure on health and social welfare budgets from an ageing population, these policy developments are clearly intended to bring a controlled halt to the historic growth in expenditure on higher education and channel constrained resources to achieving a higher rate of return for taxpayers. Of themselves, these changes do not address the two fundamental concerns of the universities, namely that 1) with the open entry policy, the universities cannot limit their domestic enrolments to the ceiling levels that the government is willing to fund and 2) the fee maxima regulations mean that the universities cannot set domestic tuition fees at cost recovery levels.

The present outlook is that the open entry tradition is likely to be steadily eroded by universities either using cross-institutional limitations of entry or admitting students at 20 years plus and quickly excluding those who do not perform in their first year through more stringent progression requirements, although the impact on this latter emerging trend has yet to be affected by the government's new funding regime. On domestic tuition fees, the Tertiary Education Strategy 2010-15 signalled that the government is willing to "explore ways of giving providers some additional flexibility to raise revenue".<sup>39</sup> In the May 2010 budget, it was announced that the fee maxima will be abolished from 2011, although initially the extent of any annual increases will be limited to 4 per cent per annum. A similar policy move now appears likely in other countries with similar systems, notably the UK.<sup>40</sup>

## 4. Conclusion

New Zealand has a large and internationally well-regarded higher education sector. Participation rates are relatively high, a product of open access for domestic students to university after the age of 20 years, and the fact that over 40 per cent of the tertiary education budget is directed towards student allowances and loans to support undergraduates. Participation rates vary by ethnicity and the growing proportion of the young population from backgrounds under-represented at tertiary level is a policy issue over the longer term.

Universities are directly funded by the government in the form of tuition subsidies and a performance-based allocation to support research. Until 2008, tuition subsidies were payable to institutions on the basis of their enrolments, but in an effort to control expenditure on higher education, the government moved to a new system after 2008 under which institutions were only funded for enrolments up to a pre-agreed funding cap. New Zealand universities can charge domestic tuition fees, but these are presently regulated by the government and constrained below economic rates. International students, who pay full cost-recovery fees, are a major alternative source of revenue, but after peaking in 2005, international enrolments in New Zealand universities fell sharply (by approximately 40 per cent) and only stabilised at new lower levels after 2008.

38 Joyce, S. 2010b. "Government investigating recovery of student loan administration costs", 5 May. <http://admin.beehive.govt.nz/release/govt+investigating+recovery+student+loan+administration+costs> (Accessed 10 May 2010).

39 Office for the Minister for Tertiary Education. *op cit*, p. 10.

40 Shepherd, J. 2010. "University fees may rise by up to £1,000 annually from 2013: Lord Browne's review to propose ending cap on university tuition", *The Guardian*, 2 May. <http://www.guardian.co.uk/education/2010/may/02/university-fees-browne-review> (Accessed 01 May 2010).

The global financial crisis has significantly damaged the government's long-term financial position, requiring an extended period during which public expenditure will be required to grow more slowly than GDP in order to bring government debt to GDP ratios back on a sustainable long-term trajectory. Given the pressure on health and social welfare budgets from an ageing population, education generally, and higher education specifically, will be forced to manage with declining real resources from the government over the next 10 to 20 years.

The government has moved quickly since late 2009 to signal major changes in funding for New Zealand universities, which are designed to focus public funding on students and courses with the highest completion rates and drive under-performing students out of the system. This will be reinforced by changes in access to student loans, which will exclude or limit entitlements to students who do not complete the programmes in a timely fashion. While the new system will be designed to protect under-represented groups, *ceteris paribus*, it is likely to reduce participation rates, not least because these changes put considerable pressure on the universities to end or limit open access by students at 20 years plus, to avoid either being over-enrolled relative to the ceilings agreed with the government or being penalised for enrolling weak students who achieve low course or degree completion rates.

The universities are being urged by the government to increase international enrolments, to allow them to increase and diversify their revenue bases. Given the rate at which international student mobility is continuing to grow, this offers a partial solution. Most universities are also seeking greater alumni donations, but this form of funding is still undeveloped in New Zealand. In the aftermath of the global economic crisis, the government's ability to increase, or even maintain the current real value of, public funding per student for universities has been sharply curtailed. The only significant alternative source of funding for universities is higher domestic tuition fees. Inevitably, New Zealand universities will become more expensive and more selective in the future, ending two decades of affordable, easily accessible higher education. While this development was inevitable, given the tension between high, publicly-subsidised tertiary participation rates and the growing pressure on public expenditure from an ageing population, the global financial crisis has exposed the vulnerabilities in the present funding model and brought forward the shift to a new paradigm in New Zealand higher education.

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# Philippines

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# 1. Introduction

The Philippines has had its share of economic downturns, including the 1983 to 1985 period during the final years of the Marcos regime; the 1990/91 period after the coup attempt during the Aquino administration, accompanied by the 1990 Luzon earthquake and the 1991 Pinatubo eruption; the 1997/98 Asian Financial Crisis, which coincided with the El Nino phenomenon; and the latest global financial crisis and economic recession, which were accompanied by food and fuel price shocks in 2008 and coincided with typhoons Ondoy and Pepeng in 2009.<sup>41</sup>

Studies were undertaken to measure the social impact of the Asian Financial Crisis of 1997/98 and reports were produced by the World Bank (1998), Lim (1998) and Reyes (1999).<sup>42</sup> Other studies have focused on measuring the effects of the crisis on the labour market, particularly in terms of unemployment, underemployment and deteriorating quality of jobs, including studies by de Dios, San Jose and Taturan (1999) and Tuano (2002). Further studies, such as that by Albert (2001) have examined the combined effects of the crisis and El Nino on poverty.

All these and other studies came up with findings and recommendations for preparing for similar events and mitigating the effects. Some of these were heeded and may account, at least in part, for the country's level of preparedness when the 2008 global financial crisis occurred.

In order to understand the economic and social implications of the latest global crisis, and determine how this affected higher education in the Philippines, a study was made of the most recently available economic, social and education data released by pertinent agencies. The study draws on early reports published by international, regional and national analysts monitoring the crisis, its effects and the responses of concerned entities. In addition, the revenue and expenditure statements of all 110 state universities and colleges (SUCs) and 33 private higher education institutions (HEIs) were collected and reviewed (see the Appendix for the names of the HEIs included in the study). Meetings were also conducted with key officials in HEIs to discuss perceived effects of the crisis at the institutional level and responses to date, if any, and at the same time brainstorm on possible strategies for coping with repercussions on the sector. The ultimate objective was to distil important policy lessons, particularly for higher education development and regulation.

## 2. Impact on the Philippine economy and society

### 2.1 Background

On 1 December 2008, the United States (US) National Bureau of Economic Research (NBER) declared that the US economy had been in recession since 2007. In the Philippines, signs of an economic downturn began appearing in January 2008 when the stock index began to drop by as much as 9.8 per cent month after month. By October 2008, the signs of a downturn became pronounced, as total merchandise exports contracted by 14.9 per cent, and a drop in industrial production growth was recorded. By November, capacity utilization had also fallen.<sup>43</sup>

<sup>41</sup> The food and fuel price shocks in the first half of 2008 pushed up prices of rice and fuel, causing the inflation rate to rise from 2.8 per cent in 2007 to 9.3 per cent in 2008. In the Philippines, food prices rose by 10 per cent in 2008, registering a sharp increase from the food inflation rate of 6.6 per cent in 2007. The rice price increases, in particular, affected almost all the households, as 97.4% of households are rice consumers, though the poorest farmers were the most vulnerable. The simultaneous increase in the prices of rice and fuel are likely to have increased the ranks of the poor. Typhoons Ondoy and Pepeng in 2009 inflicted considerable damage. About 220,000 homes were damaged or destroyed by floodwaters in Metro Manila and in parts of Luzon. Those living in makeshift housing or in slum areas were most affected, driven further into poverty.

<sup>42</sup> Tuano, P.A. 2002. "The Effects of the Asian Financial Crisis on the Philippines Labour Markets". EADN Regional Project on the Social Impact of the Asian Financial Crisis.

<sup>43</sup> Habito, C.F. 2009. "Where did the growth come from? *Philippine Daily Inquirer*, 31 August.

Before 2008, the Philippine economy had been growing at a modest pace, averaging 4.2 per cent between 1995 and 2005, reaching a growth rate of 5.3 per cent in 2006 and 7.1 per cent in 2007. This growth rate slowed to 3.8 per cent in 2008, then dropped down to 0.9 per cent in 2009 (Table 1). At the same time, GNP growth also declined, dropping from 7.5 per cent in 2007 to 6.2 per cent in 2008, and then to 3 per cent in 2009.

The Philippine economy “bounced back” in the first quarter of 2010, posting a GDP growth rate of 7.3 per cent, up from 0.9 per cent in 2009. GNP also rose by 9.5 per cent, up from 3 per cent in 2009.

**Table 1: Philippine economic indicators**

	2006	2007	2008	2009 <sup>2</sup>	2010 <sup>3</sup>
Nominal GNP <sup>1</sup> (PhP M)	6,532,104	7,229,323	8,250,249	8,700,822	9,673,101 9,884,838
Real Growth GNP (%) <sup>1</sup>	5.4	7.5	6.2	3.0	4.7-5.6
Real Growth GDP <sup>1</sup>	5.3	7.1	3.8	0.9	2.6-3.6
Population <sup>4</sup> (Millions) (Projections)	86.97	88.71	90.46	92.23	94.01
Exports of Goods (US\$M) (Per BOP) <sup>5</sup>	47,450	50,266	49,078	38,335	43,020-44,871
Growth of Exports (%)	14.9	6.4	(2.8)	(22)	5.0 to 7.0
Imports of Goods (US\$M) (Per BOP) <sup>5</sup>	51,774	55,514	56,746	46,388	58,783-63,644
Growth of Imports (%)	9.2	7.2	2.2	(24)	10 to 14
Current Account Balance (US\$B)	5.35	6.20	4.23	4.08	
% of GDP	4.6	4.20	2.5	2.4	
Gross International Reserves (US\$B)	23.0	33.75	37.6	38.0	
Equivalent Months of Imports	4.2	5.7	6.0	6.7	

**Note:** 1 Actual levels as of May 28, 2009

2 BSP 2009, [http://www.bsp.gov.ph/statistics/spei\\_new/tab61b.htm](http://www.bsp.gov.ph/statistics/spei_new/tab61b.htm)

3 Forecasts adopted by the Development Budget Coordination Committee (DBCC) on June 10, 2009

4 Population figure starting 2008 are projections based on the 2000 Population Census, medium assumption

5 Actual levels are from National Statistics Office (NSO) Forecasts adopt the IMF's Balance of Payments (BOP) Manual 5 (BPM5) Concept

**Source:** NEDA, Bangko Sentral ng Pilipinas (BSP) as cited in Republic of the Philippines Budget of Expenditures and Sources of Financing, Fiscal Year 2010

## 2.2 Channels of impact

The global economic crisis had an impact on the Philippines through two main channels: exports and employment and remittances of Overseas Filipino Workers (OFW). Exports contribute 30 per cent to the nation's total income while OFW remittances contribute about 10 per cent.

Export revenues contracted by 2.8 per cent between January and December 2008, then by 21.9 per cent in 2009 (Table 2). This contraction was due largely to the decline in demand for electronics, garments and agricultural products. The contraction in exports reached its lowest point (a drop of 36.8 per cent) during the first quarter of 2009. By the fourth quarter of 2009, export figures were improving, returning to positive territory (5.1 per cent growth) during that period. At the same time, imports contracted by 24.2 per cent in 2009 and by the fourth quarter of 2009 imports still registered negative growth (-0.3 per cent).

**Table 2: Key Indicators of the Philippines, 2009 disaggregated\***

	2007	2008	2009	1Q2009	2Q2009	3Q2009	4Q2009
GDP	7.1	3.8	0.9	0.6	0.8	0.4	1.8
Agriculture	4.8	3.2	0.1	2.1	0.2	1.5	-2.8
Industry	6.8	5	-2.0	-2.5	-1.7	-5.0	1.1
<i>Manufacturing</i>	3.3	4.3	-5.1	-7.6	-7.4	-7.8	1.3
<i>Construction</i>	21.1	7.8	5.8	14.0	14.0	0.9	-5.8
Services	8.1	3.3	3.2	2.0	2.7	3.8	4.2
<i>Trans part/Comm/Storage</i>	8.3	4.2	1.8	5.6	1.0	-1.5	1.9
<i>Trade</i>	8.2	1.2	2.9	0.4	2.7	4.4	3.5
Personal Consumption	5.8	4.7	3.8	1.3	5.4	3.2	5.1
Fixed Capital	10.9	2.9	-3.5	-7.2	-3.9	-0.9	-1.6
<i>Construction</i>	19.4	4.6	3.9	6.7	8.9	1.7	-2.9
<i>Public Construction</i>	29.2	-0.4	15.7	11.5	27.7	21.8	-7.2
<i>Private Construction</i>	13	8.2	-4.2	4.3	-10.1	-9.4	-0.1
<i>Durable Equipment</i>	4.5	1.9	-11.4	-18.5	-19.7	-4.2	-0.1
Exports (US\$)	6.4	-2.8	-21.9	-36.8	-28.9	-21.5	5.1
Imports (US\$)	7.2	2.2	-24.2	-34.3	-28.0	-28.5	-0.3

**Note:** \* All figures are growth rates, y-o-y, in per cent unless otherwise indicated; variables are based on constant prices except for remittances, exports and imports

**Sources:** Bangko Sentral ng Pilipinas, National Statistics Office, and National Statistical Coordination Board, Philippines

The contraction in exports adversely affected the manufacturing sector. Manufacturing continued shrinking up to the third quarter of 2009, but recovered sufficiently to post a 1.3 per cent growth in the last quarter of the year. Buffeted by typhoons (Ondoy and Pepeng) and floods, the agriculture, fishery and forestry industries also performed poorly, declining by 2.8 per cent during the last quarter of 2009. The services sector, which includes the outsourcing subsector and accounts for 50 per cent of the GDP, decelerated from 8.1 per cent growth in 2007, to 3.3 per cent in 2008, then down to 3.2 per cent in 2009, but continued to have positive growth.

The number of Filipino workers deployed overseas continued to rise throughout the economic crisis, but by a lower percentage than previously. Figures from the Philippines Overseas Employment Administration (POEA) indicate that in 2007 there were 1,077,623 Filipino workers deployed overseas in land-based and sea-based jobs. This number rose to 1,236,013 in 2008, an increase of 14.7 per cent, and between January and November 2009 the total number of deployed workers reached 1,284,133. But this was only an increase of 3.89 per cent from the previous year.

Overall, remittances continued to rise, but at a slower pace. According to Bangko Sentral ng Pilipinas (BSP), remittances amounted to 14.45 billion USD in 2007. This went up to 16.43 billion USD in 2008, then to 17.35 billion USD in 2009. While remittances grew by 13.7 per cent in 2008, they only grew by 5.6 per cent in 2009. In the first quarter of 2010, remittances totalled 4.3 billion USD, up 7 per cent compared to the previous year. Personal consumption expenditure, fuelled largely by overseas remittances, grew by 3.8 per cent in 2009. This was lower than the 4.7 per cent growth in 2008 and the 5.9 per cent in 2007.

As pointed out by Fix et. al.,<sup>44</sup> the sustained deployment of overseas workers and rise in remittances despite the crisis may be explained by the destination countries to which they migrate, the occupations where they are concentrated and the diversity of their destinations. Filipinos are distributed across more than 190 countries but more than 50 per cent of OFWs are in Saudi Arabia,

44 Fix, M., Papademetriou D.G., Batalona, J., Terrazas, A., Yi-Ying Lin, S. and Mittelstadt, M. 2009. *Migration and the Global Recession*. Washington, DC, Migration Policy Institute.

United Arab Emirates and Qatar, whose economies were not as hard hit as other destination states. Many OFWs are in health-related and engineering occupations, the demand for which did not decline significantly during the crisis. Moreover, during the crisis the government ordered exploration of new job markets for Filipino workers, and the POEA sent teams to Taiwan, Dubai and South Korea to address the concerns of Filipino migrants who were displaced.

## 2.3 Shock absorbers

During the latest crisis, the Philippines financial and banking industry was observed to be relatively resilient and better prepared compared to its condition at the time of the Asian financial shock a decade earlier.<sup>45</sup> The country's gross internal reserves remained steady and close to record level at 38 billion USD (see Table 1) in 2008 and 2009. This is enough to cover about 6.7 months of imports of goods and payment of services and income, or, alternatively, it could cover the country's external debt based on residual maturity.

A number of factors helped mitigate the adverse impact of the latest crisis. The country was able to build reserves because its external payments position remained in surplus in 2008 and 2009. The positive external balance was supported by remittances of OFWs and the higher services receipts, particularly from business process outsourcing. The decline in the share of US to total Philippine exports over the past decade (from 34.2 per cent in 1998 to 16 per cent in 2008) is also believed to have contributed to lessening the impact of the latest crisis.

The limited direct exposure of the Philippine banking and financial system to troubled financial assets, along with the measures that were put in place based on lessons learned from the Asian Financial Crisis, and the initiatives adopted to deal with the current situation, meant that the country emerged from the crisis with no major damage. Government statisticians and analysts describe the impact of the global financial and economic crisis at the macroeconomic level as mild. The economy experienced a downturn in 2008/09 but it did not enter into a recession, despite the situation elsewhere.<sup>46</sup>

## 2.4 Social effects of the crisis

It is believed that the economic slowdown had an impact on the disadvantaged sectors of society through the effects of the crisis on the labour market and through its impact on public services. Studies of the 1997/98 Asian Financial Crisis noted various impacts of the crisis, including: reduced demand for labour, which in turn resulted in higher unemployment and underemployment; decline in incomes across all income groups; increase in the already high household poverty incidence; and a slight increase in income inequality.

In the case of the recent global economic crisis, assessment of social impacts is constrained by lack of data on social indicators as well as huge variances in the data produced by various groups.

Official data indicate only a small change in unemployment rates in the country as a result of the crisis, with the unemployment rate rising from 6.3 per cent in October 2007 to 6.8 per cent in October 2008, and then to 7.1 per cent in October 2009. Although there may have been only a small impact on local employment, there may have been effects in terms of reduced working hours or days (instead of lay-offs), under "flexible work arrangements", reduced hiring rates and subsequent underemployment.

45 Yap, J.T., Reyes, C.M. and Cuenca, J.S. 2009. Impact of the Global Financial and Economic Crisis on the Philippines, *Discussion Paper Series* No. 2009-30. Makati City, Philippine Institute for Development Studies.

46 Lopez, E. 2009. Resilient RP economy avoids recession in '09, *Manila Bulletin Publishing Corporation*, 27 December. <http://www.mb.com.ph/node/235851/re> (Accessed December 2009).

A survey conducted by the Social Weather Station (SWS) between 20 and 23 February 2009 tried to correct for the exclusion of certain labour force entrants resulting from the government's revised definition of "unemployed"<sup>47</sup> in 2005 and found that the adult unemployment rate had gone up to 34.2 per cent, or about 14 million unemployed, from 27.9 per cent, or about 11 million, in the previous quarter.<sup>48</sup> Of the unemployed, 13 per cent left their old jobs voluntarily, 9 per cent were laid off, 3 per cent had reached the end of their contracts, 3 per cent lost their jobs as their employers closed operations, and 6 per cent had never worked before at the time of the survey. The results of the SWS survey indicate a worsening during the crisis of an already serious unemployment problem. This increasing joblessness is bound to widen and deepen poverty.

Another approach was used by Yap and Majuca.<sup>49</sup> They reviewed the data gathered by local government units between March and July 2009, through a community-based monitoring system (CBMS) to determine the impact of the crisis at the community and household levels. The study revealed that the crisis appears to have had an impact through overseas and domestic employment. Out of a total of 3,499 households, 12.5 per cent (450 households) had a member who is an OFW. Of these 450 households, 44.7 per cent (201) had an OFW who returned home between November 2008 and April 2009. Of these returnees, 5.6 per cent were laid off or retrenched. Another 9.5 per cent of these households reported that their OFW member experienced wage reduction during the period, and the household had therefore received a lower amount of remittances.

The impact of the crisis on poverty incidence could not be fully assessed as the official poverty statistics are not available at the time of writing (July 2010). But considering the food and fuel price shocks in 2008 and the natural disasters in 2009, which coincided with the global financial crisis, economists expect a higher poverty incidence figure for 2009, of at least 35 per cent, compared to the 32.9 per cent of 2006 and the 30 per cent of 2003.<sup>50</sup>

### 3. Impact on government revenue and expenditure

The economic downturn had an effect on government revenues and expenditures, which had implications in terms of the ability of the government to address basic social needs, including education. As shown in Table 3, government revenue collection grew by 16 per cent in 2007 and by 5.8 per cent in 2008. It was expected to reach 1,239.15 billion Philippines Pesos (PHP), or grow by 3 per cent, in 2009. However, actual revenue collection in 2009 amounted only to 1,123.2 billion PHP (115.9 billion PHP lower than the target), and registered negative growth (-6.6 per cent).

47 As revised, the government definition of "unemployed" includes an "availability criterion" and imposes a "cut-off period for the job search". In effect, this definition excludes the following types of persons from the list of "unemployed": a) Labour force entrants who declare that they are not available for work because they are looking forward to overseas employment, waiting for the result of job application, or waiting to be recalled to an old job; and b) those discouraged workers who stopped looking for work more than 6 months before the Labour Force Survey was conducted.

48 Social Weather Station. 2009. "First Quarter 2009 Social Weather Survey: Adult unemployment at record-high 34.2%; 13% of them left old job, 12% were retrenched" 12 May. <http://www.sws.org.ph/pr090512.htm> (accessed May 2009).

49 Yap, J.T. and Majuca, R. P. 2010. The Philippine economy in 2009 and prospects for 2010, *Development Research News*, XXVIII, 7 (January-February). Makati City, Philippine Institute for Development Studies.

50 Reyes, C. M. 2010. "Findings and Recommendations of the Draft Fourth Philippines MDG Progress Report". Presented at Consultative Workshop on the Philippines Fourth Progress Report on the Millennium Development Goals (MDGs), Crowne Plaza Galleria, Manila, 16 July.

**Table 3: Government revenue program by source (in million pesos)**

Source	2006	2007	2008	2009	2010
Tax Revenues	859,856	932,437	1,049,179	1,082,621	1,195,716
Non Tax Revenues	119,781	203,623	153,726*	156,531*	139,913*
<i>Including Foreign Grants</i>	183	150	125	-	-
Tax Revenues	979,637	1,136,560	1,202,905	1,239,152	1,335,629

**Note:** Total non tax revenues are based on FY Cash Operations Reports. However, per agency submission, total non tax revenues do not reflect lag in reporting

**Source:** Budget of Expenditures and Sources of Financing, FY 2008, 2009, 2010

The shortfall had to be covered through financing (Table 4), domestic and foreign, and 500 million USD from the Asian Development Bank (ADB) Counter Cyclical Support Facility. The deficit was due to the underperformance of the Bureau of Internal Revenue, Bureau of Customs and other offices.

In 2007, government expenditure grew by 10.6 per cent and in 2008 by 10 per cent. Expenditure reached 1,421.7 billion PHP in 2009, 67.5 billion PHP below programme. Although the bulk of the expenditure went into recurrent operating expenditures (Personal Services and Maintenance and Other Operating Expenses), a bigger slice of the budget (15.5 per cent) went into capital outlay compared to previous years.

**Table 4. National government financing 2006-2010 (in thousand pesos)**

Particulars	2006 <sup>a</sup>	2007 <sup>a</sup>	2008 <sup>a</sup>	2009 <sup>b</sup>	2010
Gross Foreign Borrowings	284,081	118,414	71,311	208,609	185,168
<i>Less: Amortization</i>	163,327	62,252	80,513	101,332	133,877
Net Foreign Borrowings	120,754	56,162	(9,252)	107,277	475,191
Gross Domestic Borrowings	370,306	326,963	429,261	451,787	475,191
<i>Less: Amortization</i>	380,939	284,017	259,951	290,031	271,486
Net Domestic Borrowings	(10,633)	42,946	169,310	161,756	203,705
Net Financing	110,121	99,951	160,108	269,033	254,996
Change in Cash	6,063	106,951	47,477	4,537	6,163
Total Net Financing Requirement	64,791	12,441	68,117	250,000	233,448

**Note:** a = Based on actual data reported in the Cash Operations Report,  
b = 2009 includes ADB Counter Cyclical Support Facility amounting to US \$ 500 Million equivalent

**Source:** Budget of Expenditures and Sources of Financing, FY 2008, 2009, 2010

As shown in Table 5, the budget was expected to increase by 15 per cent (though actual expenditures grew by only 12 per cent) in 2009, with the budget for social services increasing by 24.6 per cent and the budget for education, culture and manpower development by 19 per cent.

**Table 5: Sectoral distribution of public expenditures, 2006-2010 (in thousand pesos)**

Particulars	2006 <sup>1</sup>	2007 <sup>2</sup>	2008 <sup>3</sup>	2009 <sup>3</sup>	2010 <sup>3</sup>
Economic Services	372,284,033	443,736,372	372,438,587	463,490,842	393,695,279
Social Services	326,792,741	320,055,442	368,779,418	459,520,941	542,201,118
Education, Culture and Manpower Development	144,226,498	167,424,864	186,619,702	222,290,683	235,210,083
Defense	51,395,914	61,949,321	62,059,270	65,297,279	73,830,935
General Public Services	222,847,795	245,774,217	292,826,150	312,352,098	320,345,938
Total Productive Expenditure	973,320,483	1,061,465,360	1,096,601,425	1,300,661,160	1,330,073,270
Interest Payments	310,104,000	267,800,000	272,218,000	252,550,000	340,812,000
Financial Services	34,580,926	85,626,489	79,602,316	89,137,243	28,586,369
Grand Total	2,435,552,390	2,653,832,065	2,731,144,868	3,165,300,246	3,264,754,992

**Notes:** 1 = Fiscal Year 2008  
2 = Fiscal Year 2009

**Source:** Budget of Expenditures and Sources of Financing (BESF)

The government chose not to cut expenditures at a time when the economy was slowing down. In 2009, the national government fiscal deficit ballooned to 298.5 billion PHP, higher by 48.5 billion PHP than the expected ceiling of 250 billion PHP. This is equivalent to 3.9 per cent of GDP. In comparison, the fiscal deficit in 2008 was only 68.1 billion PHP or about 0.9 per cent of GDP (Table 6).

**Table 6: Fiscal performance, January-December 2009 (in billion pesos)**

	January-December 2008	2009	January-December 2009 Program	% growth 2008/2009
Surplus/(deficit)	(68.1)	(298.5)	(250.0)	-
Revenues	1,202.9	1,123.2	1,239.15	(6.6)
Expenditures	1,271.0	1,421.7	1,489.2	11.9

**Source:** Bureau of the Treasury, 2010

In the face of the global crisis, the Government of the Philippines had to balance the need for cushioning the impact on the real sector against the benefits of maintaining fiscal discipline. On one hand, increased spending and the resulting increase of the deficit could help mitigate the impact of the global crisis on the economy. On the other hand, an uncontrolled deficit could mean more tax burdens on the people, more debt, and a heavy debt service bill in the years ahead, and declining government spending on basic social services.

Administrative officials justify the deficit as a result of the 330 billion PHP (7.2 billion USD) stimulus programme, titled the "Economic Resiliency Plan" that was implemented in response to the crisis. The ERP had the following components: provision of small, community-level infrastructure and social protection measures (160 billion PHP); tax cuts and a scheduled cut in corporate income taxes (40 billion PHP); large infrastructure projects (100 billion PHP); and additional benefits to members of social security institutions (30 billion PHP). The ERP focused on quick disbursement and on employment generating projects such as the construction, repair and rehabilitation of irrigation systems and rural roads.

An analyst observed that the ERP had modest success in mitigating the adverse effects of the crisis in the country and cushioning its impacts on the vulnerable sectors.<sup>51</sup> Value added from publicly-funded construction grew during the first three quarters of 2009, partly due to the accelerated implementation of the various infrastructure projects under the Comprehensive Integrated

51 Habito. *op cit*.

Infrastructure Programme component of the ERP. Private investors were not stimulated enough by the looser monetary conditions and fiscal stimulus, however. Private construction even contracted during the last three quarters of 2009. Fixed capital formation declined by 3.5 per cent in 2009, with contractions in both durable equipment and private construction. This does not augur well for the production capacity of the county in the years ahead.

## 4. Impact on higher education

### 4.1 The Philippine education system and budget

The country's education system consists of three subsectors: 1) the basic education subsector comprising 40,807 pre-schools, which were recently mainstreamed into the formal education system; 37,807 elementary schools; and 6,488 high schools; 2) the Technical and Vocational Education and Training (TVET) network, comprising 4,515 training centres; and 3) the higher education subsector, comprising 1,758 colleges and universities.

The basic education subsector consists mostly of public schools, which account for 92 per cent of elementary enrolment and 80 per cent of high school enrolment. In contrast, the TVET network is 62 per cent public and 38 private; and the higher education institutions consist of 88 per cent private and 12 per cent public institutions. The biggest chunk of government expenditure on education therefore goes to the basic education subsector.

In 2009, the total budget for education stood at 220.23 billion PHP, an increase of 32.3 per cent over the 2007 budget (Table 7). The 2009 budget included infusions from the Calamity Fund of 11.67 billion PHP for rehabilitation of school buildings destroyed by typhoons and floods and 4.5 billion PHP from the Economic Stimulus Fund. Of the total education budget, almost 86 per cent was for basic education. The budget for higher education increased by 27.5 per cent over the 2007 budget, but the higher education share of total education budget decreased from 13.3 per cent in 2007 to 12.8 per cent in 2009.

**Table 7: National government expenditures for education, 2006-2010 (in thousand pesos)<sup>52</sup>**

Particulars	2006 actual	2007 actual	2008 actual	2009 adjusted	2010 proposed
Basic education	119,466,170	140,533,039	157,193,714	189,190,884	209,695,536
DepED	118,758,159	139,406,356	155,089,483	169,468,462	170,842,730
Other Spec Purpose Fund	59,840	278,155	881,372	296,634	351,724
Dep Ed School Bldg Prog				2,000,000	2,000,000
Alloc to LGU Mun Devt Fund					3,150,667
Calamity Fund				92,000	92,000
Misc Personnel Benefit Fund				11,672,860	32,434,407
Economic Stimulus Fund				4,500,000	
DOST (PSHS, SEI)	648,171	848,528	1,222,859	1,252,928	824,008

<sup>52</sup> DepEd – Department of Education; LGU – Local Government Unit; DOST – Department of Science and Technology. (Philippine Science High School, Science Education Institute); DOLE – Department of Labor and Employment (National Manpower College, Technical Education Skills and Development Authority); DILG – Department of the Interior and Local Government (Local Government Authority, Philippine Public Safety College); DND – Department of National Defense (National Defense College of the Philippines, Philippine Military Academy).

Particulars	2006 actual	2007 actual	2008 actual	2009 adjusted	2010 proposed
TechVoc –DOLE (NMPC, TESDA)	2,416,697	3,801,726	4,325,178	3,688,214	3,237,065
Higher Education	21,583,403 (15%)	22,147,347 (13.3%)	24,125,758 (12.99)	28,239,493 (12.82)	24,589,790 (10.49)
State Univ & Coll	18,438,386	19,159,103	20,919,226	24,228,385	21,034,413
DILG	671,686	922,853	895,685	1,132,299	1,063,206
(LGA, PPSC) DND	646,900	332,016	75,296	82,359	78,602
(NDCP,PMA) CHED	1,826,431	1,733,375	2,235,551	1,820,282	1,712,629
Priority Devt. Assistace Fund			976,168	700,000	
Total (less Culture Arts & Sports)	143,466,270	166,482,112	185,644,650	220,234,423	234,371,724

**Source:** Budget of Expenditures and Sources of Financing, 2008, 2009, 2010

In 2010, the proposed education budget was 234.37 billion PHP, 6.4 per cent higher than the 2009 budget. The proposed higher education budget in 2010 was 12.9 per cent lower than the 2009 level, however, with the subsector's share of the total education budget also decreasing further, to 10.49 per cent.

Funds for Foreign Assisted Projects declined from 47.5 billion PHP in 2006 to 30 billion PHP in 2009, and then increased to 34 billion PHP in 2010. Foreign assistance for education dropped to 249 million PHP in 2009, however, and was zero in 2010 (Table 8).

**Table 8: Foreign assisted projects, education 2006-2010 (in Thousand pesos)**

	Education Departments	Department of Education (DepEd)	SUCs (UP System)	DOLE (TESDA)	Subtotal Education	Total All Depts
2006 Annual	Peso Counterpart	443,748		78,835		17,669,894
	Loan Proceeds	850,014	8,650	427,302		29,281,988
	Grant Proceeds	-	-	-		561,798
	Total	1,293,762				47,513,680
2007 Annual	Peso Counterpart	420,276	-	387,995		12,008,453
	Loan Proceeds	1,291,959	8,650	472,242		26,395,906
	Grant Proceeds	-	-	-		831,330
	Total	1,712,235	8,650	830,217		39,235,689
2008 Annual	Peso Counterpart	346,188	-	158,162		4,849,679
	Loan Proceeds	664,340	8,649	191,848		23,066,004
	Grant Proceeds	-	-	-		472,693
	Total	1,010,498	8,649	350,010		35,386,376
2009 Annual	Peso Counterpart	181,895	-	3,080		11,070,293
	Loan Proceeds	-	246,097	-		18,635,751
	Grant Proceeds	-	-	-		423,756
	Total	181,895	-	249,177		30,129,800
2010 Proposed	Peso Counterpart	31,110	-	-		10,621,100
	Loan Proceeds	-	-	-		23,028,982
	Grant Proceeds	-	-	-		318,844
	Total	31,110	-	-		34,018,926

By type of expenditure, Personal Services increased over the past four years. Likewise, the expenditure for Maintenance and Other Operating Expenses (MOOE) increased between 2006 and 2009, then decreased in 2010. Capital Outlay also increased between 2006 and 2009, with a significant leap from 8.4 billion PHP in 2008 to 12.7 billion PHP in 2009 as a result of the additions from the Calamity Fund and Economic Stimulus Fund. In 2010, however, Capital Outlay dropped to 1.83 billion PHP.

## 4.2 Effects on higher education funding and enrolment

As noted above, private HEIs constitute the majority (88 per cent) of the total number of colleges and universities in the higher education subsector, and private HEIs account for 62.6 per cent of higher education enrolment (Table 9).

**Table 9: Philippine higher education institutions (HEIs), 2005/06 to 2009/10**

Indicator	2005/06	2006/07	2007/08	2008/09	2009/10
Higher Education Institutions (HEIs)					
<i>Total HEIs (excluding SUCs Satellite campuses)</i>	1,683	1,170	1,701	1,741	1,758
<i>Total HEIs (including SUCs Satellite campuses)</i>	1,943	2,036	2,034	2,074	2,112
Public	191	196	201	203	206
<i>State Universities and Colleges (SUCs)</i>	111	110	110	110	109
<i>SUCs Satellite Campuses</i>	260	326	333	333	354
<i>Local Colleges and Universities (LGUs)</i>	65	70	75	77	81
<i>Others (include OGS, CSI, Special HEI)</i>	15	16	16	16	16
Private	1,492	1,514	1,500	1,538	1,552
<i>Sectarian</i>	368	299	300	302	
<i>Non-Sectarian</i>	1,134	1,215	1,200	1,236	

**Source:** Philippine Commission on Higher Education, 2010

Private higher education institutions depend largely on tuition and other school fees. Some also receive donations and grants and support from other sources. Of the 33 private HEIs in the sample examined for this study (representing 14 per cent of total enrolment in private HEIs), 26 (79 per cent) had increases in gross revenues in 2008 and 2009, four had increases in 2008 but decreases in 2009, while three sustained decreases in both years. In terms of net revenues, 19 enjoyed increases in 2008 and 2009, six sustained decreases in both years, two sustained decreases in 2008 but recovered in 2009, one had increase in 2008 but sustained a decrease in 2009, and five operated on deficits in both years. The most seriously affected were four institutions whose enrolments declined considerably during the school years 2007/08 and 2008/09. These schools have deferred implementation of needed repair or upgrading of their facilities, faculty training and other activities, and started to phase out programmes with very low enrolments.

Although some government subsidies find their way to the private schools in the form of scholarships for students who enrol in such institutions and through Grants in Aid for research and institutional capacity building, the amounts of such subsidies are not significant. Most of the government budget for higher education goes to public institutions: State Universities and Colleges (SUCs); other government schools that are funded by national government agencies, such as the Local Government Academy (LGA) and the Philippine Public Safety College (PPSC) under the Department of Interior and Local Government (DILG), the National Defence College of the Philippines (NDCP) and the Philippine Military Academy (PMA) under the Department of National Defense (DND); and the Commission on Higher Education (CHED). The Local Colleges and Universities (LCUs), although government funded, are not included in the national education budget as their funding requirements are provided by their respective local government units.

In 2006, the higher education budget was 21.6 billion PHP. It increased to 22.15 billion PHP in 2007, and then rose to 24.12 billion PHP in 2008, then went up to 28.24 billion PHP in 2009. In 2010 it dropped down to 24.59 billion PHP. The SUCs got the biggest share, between 85 and 86 per cent of the total.

In the face of increasing demand for basic education, and the consequent decreasing share of higher education in the total education budget, the SUCs have been empowered (through the “Higher Education Modernization Act of 1997”) to conduct Income Generating Projects (IGPs) to augment their budgets and utilize the generated resources for the schools’ needs. The internally generated income of SUCs amounted to 9.4 billion PHP in 2009, making up 28 per cent of the total receipts of the SUCs (Table 10). This is expected to increase to 10.2 billion PHP, accounting for 32.6 per cent of the total receipts of the SUCs.

**Table 10: Statement of receipts-SUCs (in thousand pesos)**

Source	2006	2007	2008	2009	2010
General Appropriations Act (GAA)	18,857,318	18,541,821	19,406,292	24,228,385	21,034,413
Internally Generated Income (IGP)	6,624,920	6,676,096	7,209,642	9,436,435	10,196,641
<i>Tuition and other income</i>	<i>(26%)</i>	<i>(26.5%)</i>	<i>(27.1%)</i>	<i>(28%)</i>	<i>(32.6%)</i>
<i>Collected from student</i>	<i>4,225,875</i>	<i>4,422,369</i>	<i>5,030,664</i>	<i>6,351,427</i>	<i>6,819,993</i>
<i>Other sources: revolving fund</i>	<i>2,208,806</i>	<i>2,985,248</i>	<i>2,110,069</i>	<i>4,018,756</i>	<i>3,210,665</i>
<i>Grants and donations</i>	<i>190,239</i>	<i>68,479</i>	<i>68,909</i>	<i>172,841</i>	<i>165,983</i>
Total	25,482,238	25,217,917	26,615,934	33,664,820	31,231,054

**Source:** Budget of Expenditures and Sources of Financing FY 2008, 2009, 2010

In 2010, the SUCs had to use internally generated income to sustain their expenditure on MOOE and Capital Outlay in view of the reduced allocation from the national budget for these items (Table 11).

**Table 11: Statement of expenditures-SUCs (in thousand pesos)**

	2006	2007	2008	2009	2010
Personal Services (PS)	16,944,712	17,771,738	19,593,086	19,985,087	20,605,017
<i>General Appropriations Act (GAA)</i>	<i>15,446,676</i>	<i>16,154,877</i>	<i>17,429,639</i>	<i>17,683,276</i>	<i>18,095,479</i>
<i>Internally Generated Income (IGI)</i>	<i>1,498,036</i>	<i>1,616,861</i>	<i>2,163,467</i>	<i>2,301,811</i>	<i>2,509,538</i>
Maintenance and Other Operating Expenses (MOOE)	5,502,629	6,175,049	7,316,943	8,425,364	13,784,343
<i>GAA</i>	<i>2,440,188</i>	<i>2,545,063</i>	<i>2,783,104</i>	<i>3,618,531</i>	<i>2,914,722</i>
<i>IGI</i>	<i>3,062,441</i>	<i>3,629,986</i>	<i>4,533,239</i>	<i>4,626,833</i>	<i>10,869,621</i>
Capital Outlay (CO)	1,793,589	1,928,490	2,518,143	4,719,773	5,296,408
<i>GAA</i>	<i>730,399</i>	<i>644,548</i>	<i>962,650</i>	<i>2,926,578</i>	<i>24,212</i>
<i>IGI</i>	<i>1,063,190</i>	<i>1,283,942</i>	<i>1,555,493</i>	<i>1,793,195</i>	<i>5,372,196</i>
Total	24,240,930	25,875,277	29,428,172	32,950,224	39,685,768

**Source:** Budget of Expenditures and Sources of Financing FY 2008, 2009, 2010

Other ways in which the crisis affected higher education are outlined below.

- Change in the number of foreign students

As shown in the table below (Table 12), there was a significant decrease in the number of foreign students in the country during the crisis period (2008) compared to 2005. Asians, particularly Korean and Chinese, made up most of the foreign students. This could indicate growing demand for education in the Philippines among nationals of countries affected by the crisis, perhaps because of its relative affordability and the low cost of living in the country.

Ten of the private HEIs in the sample have foreign students and, according to administrators, these students pay higher fees, make use of the schools' income-generating auxiliary services and utilize otherwise unutilized capacities, and thereby support the schools financially.

Although foreign students provide a source of additional income for HEIs, they compete with, and could crowd out, students from low income families who are the intended beneficiaries of the SUCs and LUCs. Hence, there may be a need for a policy or a mechanism for selective or limited admission of foreign students in SUCs and LUCs. Such a mechanism should, however, consider the present practice of using movement of foreign students and faculty into an institution as a criterion in the international ranking of HEIs.

**Table 12: Number of foreign students in tertiary education by region of origin, 2001-2008**

	2003	2004	2005	2006	2007	2008
Africa	158	148	127	158	-	98
North America, Central America and Caribbean	797	396	808	1,129	-	335
South America	6	6	14	4	-	11
Asia	3,615	2,836	3,703	3,662	-	2,117
Europe	108	46	85	160	-	37
Oceania	58	55	99	23	-	7
Unspecified	2	8	22	-	-	-
Total	4,714	3,495	4,836	5,136	-	2,665

**Source:** UNESCO Institute of Statistics. <http://stats.uis.unesco.org/unesco/TableViewer> (accessed March 2011)

- Decline in enrolments in 2008/09 compared to 2007/08

Though the decrease was not big, the decrease in enrolments in 2008/09 compared to 2007/08 (of about 28,900) is worrisome as there was a decline in enrolment in priority disciplines, including mathematics and science. In 12 of the private HEIs examined for this study, the number of students enrolled in mathematics and science had gone down to less than the 100 prescribed for baccalaureate programmes. At the same time, enrolment has increased in business studies, information technology, and service trades (Table 13).

**Table 13: Summary of tertiary enrollment by discipline group and academic year**

Discipline Group	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010*	2010-2011*
Agricultural, Forestry, Fisheries, Vet Med	63,913	59,397	58,168	63,312	50,788	46,261
Architectural and Town Planning	19,667	19,015	19,288	18,004	17,138	16,219
Business Admin and Related	531,017	572,174	612,481	651,190	578,947	575,966
Education and Teacher Training	361,774	331,416	370,441	319,968	301,908	284,937
Engineering and Technology	301,411	315,412	311,437	319,759	298,373	292,914
Fine and Applied Arts	11,282	12,216	12,931	13,732	13,941	14,462
General	22,518	20,698	35,257	13,786	10,683	5,843
Home Economics	5,562	5,568	4,952	4,847	3,864	3,434
Humanities	25,860	26,558	29,241	28,282	28,755	29,045
Information Technology	242,799	251,661	280,596	303,640	286,520	292,951
Law and Jurisprudence	18,840	16,977	18,159	19,293	17,923	17,719
Maritime	74,601	54,870	69,033	63,970	53,304	48,529
Mass Communication and Documentation	23,781	30,020	28,385	31,406	29,811	30,156
Mathematics	10,701	14,553	12,688	11,872	11,985	11,861
Medical and Allied	549,658	609,659	547,595	517,253	695,753	756,778

Discipline Group	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010*	2010-2011*
Natural Science	22,903	23,149	25,044	22,641	21,025	20,088
Religion and Theology	7,143	8,568	7,884	7,804	7,543	7,458
Service Trades	13,576	19,740	23,951	26,814	24,466	25,785
Social and Behavioral Science	64,092	67,452	73,512	73,035	70,476	70,444
Trade, Craft and Industrial	7,909	9,891	5,799	4,330	8,953	9,565
Other Disciplines	104,267	135,455	107,452	110,447	116,138	117,216
Total Enrollment of Priority Discipline	1,647,427	1,679,132	1,694,290	1,640,419	1,736,794	1,770,538
Grand Total	2,483,274	2,604,449	2,654,294	2,625,385	2,648,294	2,677,631

**Note:** Shaded rows refer to Priority Disciplines, \* Projection

**Source:** Philippine Commission on Higher Education, September 2009

- Heightened migration of students from private HEIs to SUCs and LCUs

There has been a decline in enrolments in private HEIs over the last two decades. While private HEIs have made up between 65 per cent and 79 per cent of enrolments over the past two decades, in 2008/09 the share dropped to less than 63 per cent. This movement away from private HEIs reflects the reduced incomes and increased poverty in the Philippines, brought about by the economic crisis.

One SUC reportedly gained 7,000 additional students (freshmen and transferees) in the last two school years. It also absorbed 30 staff, including from neighbouring HEIs, mostly private. Some private schools have been trying to check the decline in enrolments by freezing tuition fees, adopting more liberal school fee payment schemes, or providing incentives or discounts for student recruitment.

One result of the declining enrolment in private institutions, which is positive from the point of view of central education management, is the reduction of faculty loads in some affected HEIs, with the number falling from (the unauthorized overload of) 36 to 40 units to the standard 18 to 24 units per faculty.

**Table 14:** Tertiary enrollment by sector and academic year

Academic Year	Public	Private	Total	Private Sector Share
1994-1995	399,623	1,472,024	1,871,647	78.65%
1995-1996	487,489	1,530,483	2,017,972	75.84%
1996-1997	550,470	1,510,830	2,061,300	73.30%
1997-1998	542,950	1,525,015	2,067,965	73.74%
1998-1999	655,629	1,623,685	2,279,314	71.24%
1999-2000	717,445	1,656,041	2,373,486	69.77%
2000-2001	771,162	1,659,680	2,430,842	68.28%
2001-2002	808,321	1,657,735	2,466,056	67.22%
2002-2003	815,595	1,611,381	2,426,976	66.39%
2003-2004	829,181	1,591,675	2,420,856	65.75%
2004-2005	819,251	1,583,064	2,402,315	65.90%
2005-2006	849,555	1,633,719	2,483,274	65.79%
2006-2007	881,656	1,722,793	2,604,449	66.15%
2007-2008	915,191	1,739,103	2,654,294	65.52%
2008-2009	982,701	1,642,684	2,625,385	62.57%

**Source:** Philippine Commission on Higher Education, September 2009

## 5. Conclusions

The impact of the 2008 global financial crisis on the Philippine economy was “mild”. This can be attributed to the resilience and preparedness of the banking and financial system, to the foresight of economic planners who engineered the decline in the share of US to total Philippine exports, to the OFWs whose remittances made up for the negative performance of the exports sector, and to the implementation of the ERP which mitigated the adverse effects of the economic slowdown in the country and cushioned its impacts on vulnerable sectors.

In spite of the crisis, government expenditure for education was not curtailed. The budget share for the higher education subsector was reduced in 2010, however. Some SUCs could cover the shortfall with internally generated income and thereby sustain their MOOE and Capital Outlay requirements, but the majority did not have the capacity to do so. This budget reduction could seriously hamper the higher education subsector’s efforts to improve the quality of education provided and to produce globally competitive graduates. If the country continues to rely on remittances, it will have to produce more and highly skilled workers who can compete in the international arena. For this to be achieved, sufficient resources must be made available to the higher education subsector.

The CHED is proposing that the education budget be increased to approximately 4 per cent of GDP. This would mean an education budget of about 305.2 billion PHP in 2011. If 15 per cent of this amount could be allocated for higher education, this would enable the subsector to upgrade higher education provision to international standards and to produce more highly skilled graduates.

There was an increase in the number of higher education institutions and programmes between 2006 and 2010, so one could conclude that the crisis did not make a significant impression on the subsector. A closer look at the higher education statistics, and discussions with school administrators, indicates that the crisis had an impact in several areas, however, including a decline in enrolment in priority fields and migration of students from private to public HEIs.

The decline in enrolment in priority fields indicates a need for more reliable information on and analysis of labour market signals in the country and overseas. The establishment of a Labour Market Information System (LMIS) has been proposed. An LMIS at the regional level would help guide HEI planners and students. The higher education sector plan is due for review, as it should reflect market challenges and opportunities. Student scholarships, grants for institutional capacity building and other programmes should also be reviewed and reoriented to steer HEIs and students towards fields that meet market needs and the country’s development needs.

The continuing migration of students from private to public HEIs raises the question of how far this trend should be allowed to go without overstressing the absorptive capacity of the public education system. Decision makers should consider what the optimal public-private balance in higher education should be, taking into consideration factors such as government spending on basic education and the reduction in the amount spent by the government on higher education. Appropriate mechanisms and policy instruments should be adopted to bring about the desired public-private balance in higher education provision.

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# Thailand

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# 1. Introduction

The world has witnessed a series of staggering events since early 2008. The financial crisis spread across the globe, and as it deepened, the world's most developed economies began to experience severe and synchronized economic contractions<sup>53</sup>

Although the latest global economic crisis cannot be explained by only one cause, it is clear that the real estate issues in the United States were a significant starting point, followed by problems relating to risky financial dealings in the finance and banking industry in the United States, which spread to the finance and banking spheres of Europe and Asia.<sup>54</sup>

By the end of 2008, many Asian equity markets had experienced falls, some by more than half their peaks in 2007. At the same time, the economic impact of what was initially a financial crisis intensified as the developed economies fell into recession.<sup>55</sup>

## 2. Impact on Thailand's economy and society

For Thailand, the first impact of the financial crisis was that its overseas market was reduced, because key purchasers such as the United States, European countries and Japan were facing problems. Then tourism declined and consumers became more cautious about their spending. As a result, production diminished. The number of unemployed increased, particularly of educated persons. Per capita income declined, as did the state income.

The crisis in Thailand led to a decreased rate of economic growth. The growth rate declined from 4.9 per cent in 2007 to 2.5 per cent in 2008 and then contracted to 2.2 per cent in 2009. In the first quarter of 2010, however, the Thai economy grew at higher than expected rate of 12 per cent. Household consumption, private investment, and exports also improved. Some economic indicators are shown in Table 1.

**Table 1: Thai economy – key economic indicators, 2007-2010**

	Actual Data			Projection 2010
	2007	2008	2009	As of 24 May 2010
GDP (at current prices: billions THB)	8,529.8	9,075.5	9,050.7	9,729.5
GDP per capita (THB per year)	129,240	135,455	134,683	144,141
GDP (at current prices: billions USD)	245.8	273.4	263.6	299.4
GDP per capita (USD per year)	3,724.2	4,080.6	3,922.6	4,435.1
GDP Growth (at constant prices, %)	4.9	2.5	-2.2	3.5-4.5
Inflation (%)	2.3	5.5	-0.9	3.0-4.0
Unemployment rate	1.5	1.4	1.5	1.3*

**Note:** \* Actual Data for Labour Force in Q1.

**Source:** Thailand Office of the National Economic and Social Development Board, Economic Outlook. Press release on 24 May 2010; Thailand National Statistics Office.

GDP at current prices increased from 8,529.8 billion Thai baht (THB) in 2007 to 9,075.5 billion THB in 2008, and then slightly decreased to 9,050.7 billion THB in 2009. It was expected to rise to 9,729.5 by the end of 2010. The unemployment rate was 1.5 per cent in 2009.

53 Lee Kuan Yew School of Public Policy, 2009.

54 Sinlarat, 2009.

55 Lee Kuan Yew School of Public Policy, 2009, p. 2.

The economic forecast for 2010 was in the range of between 3.5 and 4.5 per cent growth. Despite an outstanding growth of 12 per cent in the first quarter, the economy remains at risk due to factors such as (i) the debt crisis in some European Union countries, which could endanger global economic recovery (ii) political instability, which not only reduces inbound tourists, but also poses difficulties to the government administrative process and causes delays in both disbursement of the Stimulus Package 2 (SP2) or Thai Kem Khang 2012, and the fiscal budget for 2011 (iii) surges in private long-term capital outflow as a result of reduced confidence in the local economy and (iv) severe drought, which is expected to disrupt agricultural production and subsequently lead to a low farm income.<sup>56</sup>

Consequently, the forecasts for the key economic indicators are as follows: (i) inflation between 3 and 4 per cent; (ii) an unemployment rate of 1.3 per cent and (iii) a current account surplus of 4.1 per cent of GDP.<sup>57</sup>

### 3. Impact on government revenue and expenditure

The total government revenues in the fiscal year of 2006 were 3,329,792.8 million THB. About 53.3 per cent came from domestic grants and loans. The total revenues increased to 4,422,213.2 million THB in the fiscal year of 2009, with 58.8 per cent domestic grants and loans. This indicates that the crisis put fiscal pressure on the government and left a legacy in terms of heavy debt (Table 2).

**Table 2: Government revenues by source, 2006-2010 (million THB)**

	Financial year				
	2006	2007	2008	2009	Allocated budget 2010
A. Domestic revenues, excluding grants and loans of which central government revenues	1,360,000.0	1,566,200.0	1,660,000.0	1,835,000.0	1,700,000.0
B. Grants and loans (domestic)	1,775,786.6	1,943,461.6	2,095,124.5	2,523,515.5	2,515,811.1
C. Grants and loans (foreign)	191,917.2	107,901.7	66,986.1	62,997.7	63,784.9
D. Any other sources	2,089.0	1,519.8	1,320.6	NA	NA
E. Total resources (in principle, A+B+C+D)	3,329,792.8	3,619,083.1	3,823,431.2	4,422,213.2	4,279,596.0
Exchange rates	37.5422	34.4733	33.0811	34.7180	33.2734

**Note:** The government budget year begins on 1 October and ends on 30 September the following year.

**Sources:** Ministry of Finance; Ministry of Foreign Affairs; the Budget Bureau Office

Domestic revenues declined from 1,835,000 million THB in the fiscal year 2009 to 1,700,000 million THB in the fiscal year 2010.

Government expenditure increased from 2006 to 2009 but decreased, particularly for the capital expenditure, in 2010 (Table 3).

<sup>56</sup> National Economic and Social Development Board (NESDB), 2010.

<sup>57</sup> NESDB, 2010. p. 5.

**Table 3: Government expenditure by nature, 2006-2010 (millions THB)**

	Financial year				
	2006	2007	2008	2009	Allocated budget 2010
Total public expenditure	1,360,000.0	1,566,200.0	1,660,000.0	1,835,000.0	1,700,000.0
Current expenditure	1,222,655.1	1,386,685.4	1,474,775.4	1,628,254.0	1,567,206.1
Capital expenditure	137,341.9	179,514.6	185,224.6	206,746.0	132,793.9
Exchange rates	37.5422	34.4773	33.0811	34.7180	33.2734

**Source:** Ministry of Finance; the Budget Bureau Office

## 4. Impact on higher education

Universities and colleges are stable institutions, in part due to their mission and role in society and in part due to how they operate and are managed. Nonetheless, the economic downturn had an impact on higher education institutions in a variety of ways. There was a reduction in endowments, and some promised donations were delayed. It is likely that there will be no budget for certain forms of education development. The financial crisis also affected the market value of university endowment funds.

Only a small fraction of government revenues is spent on education. Between 2006 and 2009 between 21.7 and 22.7 per cent of national expenditure was allocated for education. This increased to 23.7 per cent in 2010.

**Table 4: Trends in public expenditure on education, 2006-2010 (millions THB)**

	Financial year				
	2006	2007	2008	2009	Allocated Budget 2010
Total expenditure	294,954.9	356,946.3	363,164.2	400,232.2	402,891.5
Current expenditure	282,478.4	338,688.4	341,194.4	379,795.9	393,129.0
Capital expenditure	12,476.5	18,257.9	21,969.6	20,436.3	9,762.5
OF WHICH:					
Tertiary education (ISCED 4+5+6)	51,798.5	63,967.3	69,541.9	74,794.5	66,784.1*
Current expenditure	43,766.1	52,098.3	53,817.5	61,587.1	60,464.7
Capital expenditure	8,032.4	11,869.0	15,724.4	13,207.4	6,319.4
Exchange rates	37.5426	34.4773	33.0811	34.7180	33.2734

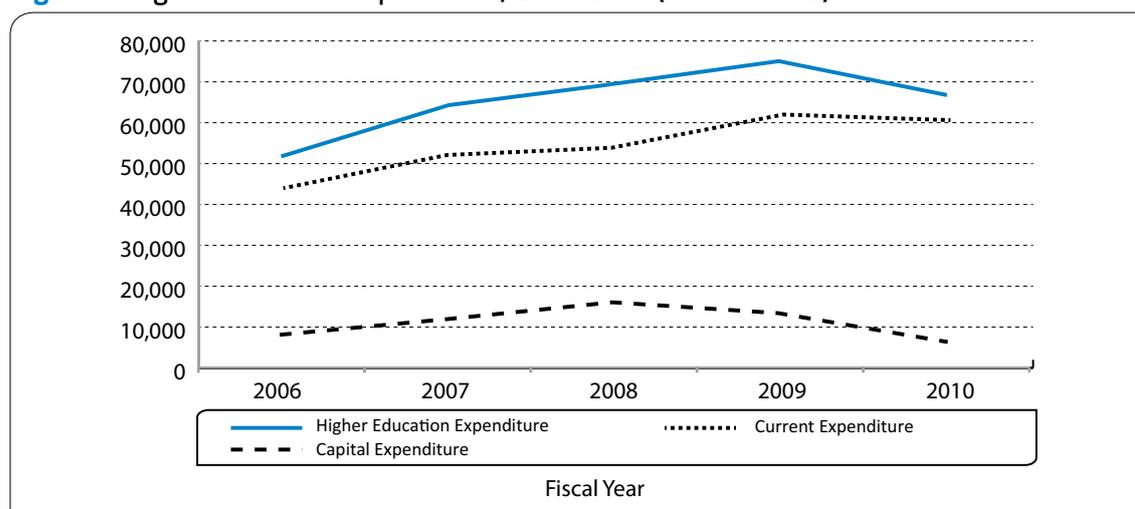
**Note:** \* Includes expenditures of the Higher Education Commission Office.

**Sources:** Ministry of Finance; the Budget Bureau Office; Office of Higher Education Commission

Investment in education was mainly for basic education. In 2006, only 17.6 per cent of public expenditure on education went to tertiary education (bachelor's degrees and above). Expenditure on tertiary increased slightly, to 18.7 per cent, in 2009 but dropped to 16.6 per cent in 2010.

In general, government spending on public universities is usually inadequate. The larger part is spent on maintaining the operation of the institutions and increasing the number of student recruits. About 15 to 20 per cent of the higher education budget is spent each year on construction and acquisition of new equipment. The capital budget was reduced to 9.5 per cent in 2010 (Table 4 and Figure 1).

**Figure 1: Higher education expenditure, 2006-2010 (millions THB)**



**Sources:** Ministry of Finance; Ministry of Education; Budget Bureau Office

## 4.1 Reform of higher education

Higher education is essential to human resource development, especially in this era of globalization, in which a country's international competitiveness depends a great deal on the capability of its citizens to succeed in a knowledge-based economy and society.

The Thai higher education system is facing a crisis. A large proportion of university graduates are not sufficiently competent in their fields, and while there is a surplus of graduates in the field of social sciences there is a lack of qualified graduates in the technological and professional fields.<sup>58</sup>

Several endeavours have been made to increase access to higher education and improve its quality. These include the provision of educational loan funds, establishment of new universities, transformation of existing public institutions into private universities, reform of the central university admission system and promotion of research and innovation in Thai higher education institutions.<sup>59</sup>

To enable universities to produce high calibre graduates consistent with the requirements for social and economic development and national competitiveness, and to serve as centres for the creation of knowledge required for transformation to a knowledge-based economy and society, the reform of higher education has focused on improving the structure and administrative system and on strengthening the mechanisms and administrative procedures for enhancing the quality of education.<sup>60</sup> A policy and roadmap was issued for the functioning of the Ministry, based on government policy, ongoing strategies of the Ministry of Education and relevant studies.

## 4.2 The education loan fund

Demand for higher education has increased in Thailand because of the rising demand for human resources with the skills required for modern economic development, as well as because of the greater access to higher education provided by student loan schemes.

State-supported student loans are increasingly on the policy agenda in many countries. Student loan schemes are in place in over 50 countries around the world, and almost all of them are concerned with tertiary education. In many countries, proposals to introduce student loan schemes are of particular interest to policy makers because such schemes can contribute to addressing a range of

<sup>58</sup> Weesakul, 2004; Rachapaetayakom, 2005.

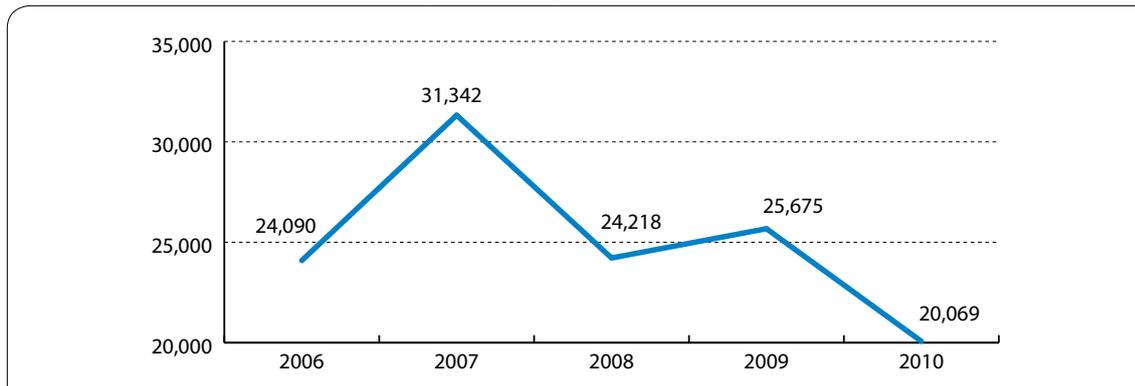
<sup>59</sup> Office of the Education Council, 2006.

<sup>60</sup> Office of the Education Council, 2006, p. 22.

education policy issues that governments face.<sup>61</sup> In Thailand, the Ministry of Finance is responsible for loans allocation, under the Educational Loan Fund, while the Krung Thai Bank takes charge of debt repayment following the graduation of students.

In 2006 the Education Loan Fund was 24,090 million THB. It increased to 31,324 million THB in 2007 and decreased to 20,069 million THB in 2010. Looking at the trend of loans between 2006 and 2010, it is clear that the student loans budget has decreased since 2007. The economic downturn could be a factor in this as the crisis has made it more difficult for graduates to find jobs, so students are less likely to incur loans and graduates would be unable to pay the debts if they are unemployed. The trend is presented in Figure 2, below.

**Figure 2: Student loan funds budget, fiscal years 2006-2010 (millions THB)**



**Source:** Office of the Educational Loan Fund

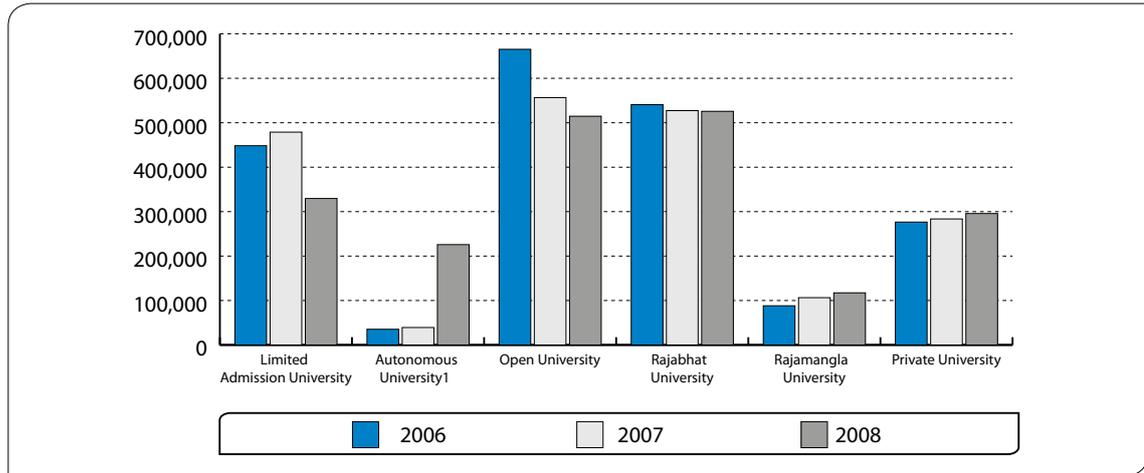
### 4.3 Student enrolment and graduation

There are eight categories of post-secondary education institutions in Thailand. These are public universities with limited admission, autonomous public universities, open universities, the Rajabhat University, the Rajamongala University of Technology, public vocational colleges, private universities and private colleges. All, except private universities and private colleges, operate on a budget allocated by the government.

There are currently 143 higher education institutions in Thailand (77 public and 66 private universities and colleges) under the supervision of the Office of the Higher Education Commission. Tertiary level institutions include those that offer four-year programmes of study leading to a bachelor's degree. This does not include public and private vocational colleges, which offer two-year study programmes leading to a vocational diploma.

As shown in Figure 3, student enrolment in higher education, including those in open universities, declined from 2,054,426 in academic year 2006 to 2,008,851 in 2008.

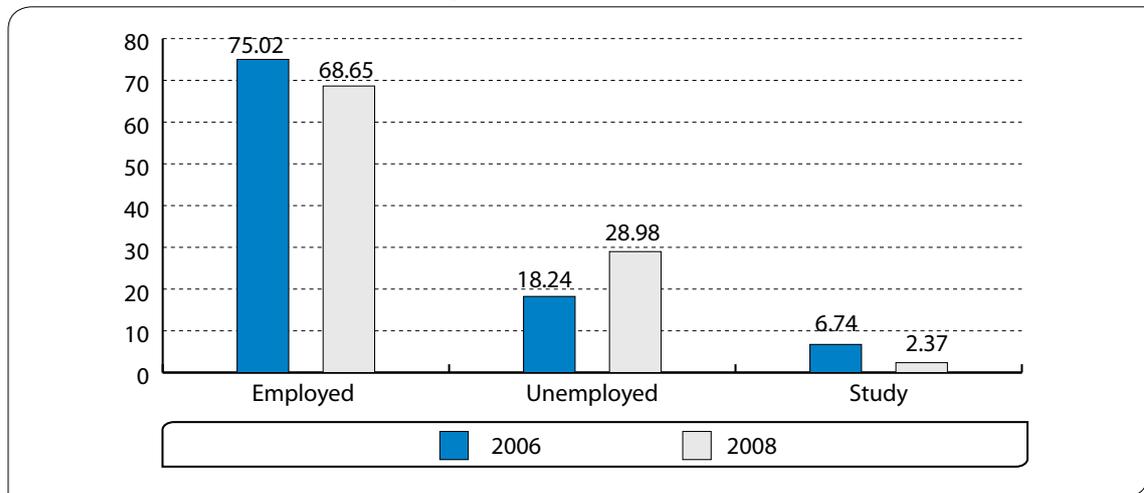
**Figure 3: Number of students by type of university, academic years 2006-2008**



**Source:** Higher Education Commission Office

In 2006 there were 320,815 graduates with bachelor's degrees and above. In 2007 this figure increased to 371,982. In 2006 about 75.02 per cent of graduates (excluding those from open universities) were employed. About 18 per cent of graduates were unemployed. The proportion of employed graduates dropped to 68.65 per cent in 2008 and unemployment rose to 28.98 per cent. Unemployment is believed to be due to a mismatch between employers' demands and graduates' qualifications and due to a reduction in job openings in the labour market between 2006 and 2008, which came about as a result of the economic crisis.

**Figure 4: Employment situation of graduates in academic year 2006-2008**



**Source:** Higher Education Commission Office

As a result of the economic crisis, graduates are likely to have more difficulties in finding jobs. It is likely that some graduates have to take jobs not related to their qualifications or be underemployed because they cannot find jobs for their qualification levels (Figure 4).

## 5. Conclusions

The global financial crisis had a negative impact on Thailand's foreign investment and trade. The ensuing economic downturn had the effect of increased unemployment among graduates, resulting in less national stability. The global financial crisis also led to reductions in funding for higher education in Thailand and a downward trend in student loans.

But economic crises should not be regarded only as negative events, but also as opportunities to implement structural reforms that would otherwise be politically challenging. It is expected that, as a result of the crisis, higher education in Thailand will gain greater support to develop management capacity and increase the quality of education.

The latest financial crisis has also challenged the existing Western paradigm and concepts, practices and management of business, and has tested the system of capitalism. It has shown that they are not the only options. The Asian paradigm or way, "Vitheer Asia", which comprises the middle path process, self-dependence and self-sufficiency, was maintained in Asia for thousands of years and is an option that should now be explored further.

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