The impact of economic crisis on higher education INTRODUCTION

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ERI-Net – the network of research institutions in the education field comprising of eight countries in Asia and the Pacific and established by UNESCO in 2009 – has carried out a detailed investigation regarding the impact of the global financial crisis on Higher Education in the area.
The results of the study showed that many countries of the region didn't reduce the public finances to the sector. On the contrary, in the medium-long term, they have adopted "as a common strategy to overcome the crisis", a massive investment policy in Higher Education, also through incentive systems and firm support to public-private partnerships.

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 UNESO 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 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 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." (Varghese, 2010)

In its draft resolution to the 6th World Congress of Education International, the United Kingdom University and College Union 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 countercyclical 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." (UCU, 2011)

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 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" (Varghese, 2010). 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." (Schneller, 2010)

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 Shenzen 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 King'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 King'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 counties, 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) focused 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 Unviersity 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 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”. (Varghese, 2001)

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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