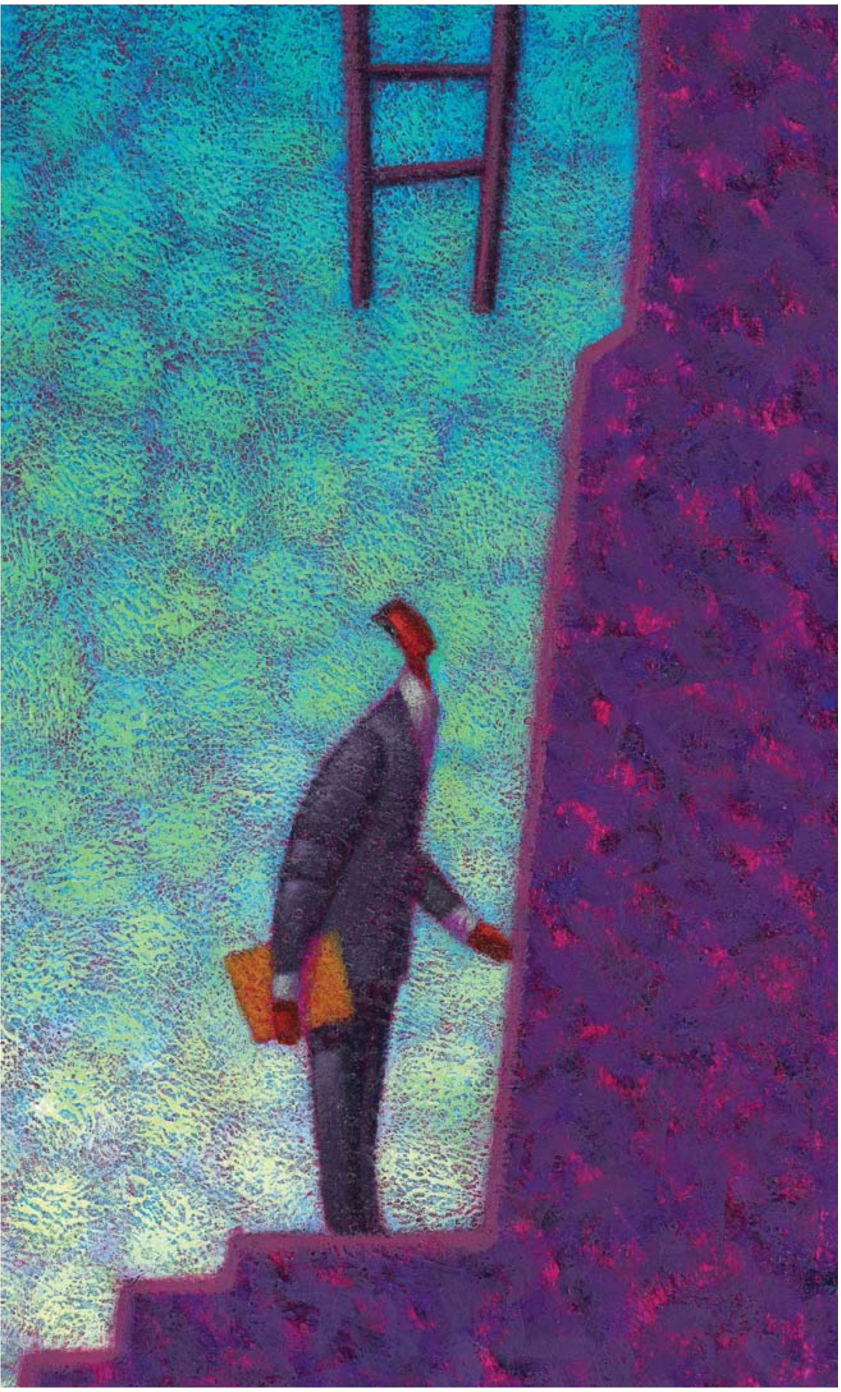
Fourth Quarter 2006

INSIGHTS

Ongoing research and analysis on business dynamics, financial policies and regulatory activities in the Asia/Pacific region



Global Economic Resilience: Five Years After 9/11

The Fear Factor

Resilience: The Examples Set by US, UK, and Indonesia

The New Global Economy

MasterCard Worldwide

MasterCard Worldwide
A Knowledge Leader in Asia/Pacific

MasterCard Worldwide is widely recognized as a knowledge leader in Asia/Pacific. Over the years, the global payment solutions company has devoted extensive resources to developing a deeper understanding of the payments card markets and the business and economics environment in the region through surveys and independent research studies. Some of these initiatives include the MasterIndex™ of Consumer Confidence, MasterIndex™ of Retail, MasterIndex™ of Travel & Asian Lifestyles, MasterIndex™ of Women's Advancement, and Asia/Pacific Merchant Smart Card Study. Today, these MasterCard offerings are much sought after by analysts, academics and decision makers in financial institutions, government agencies and multi-national organizations.

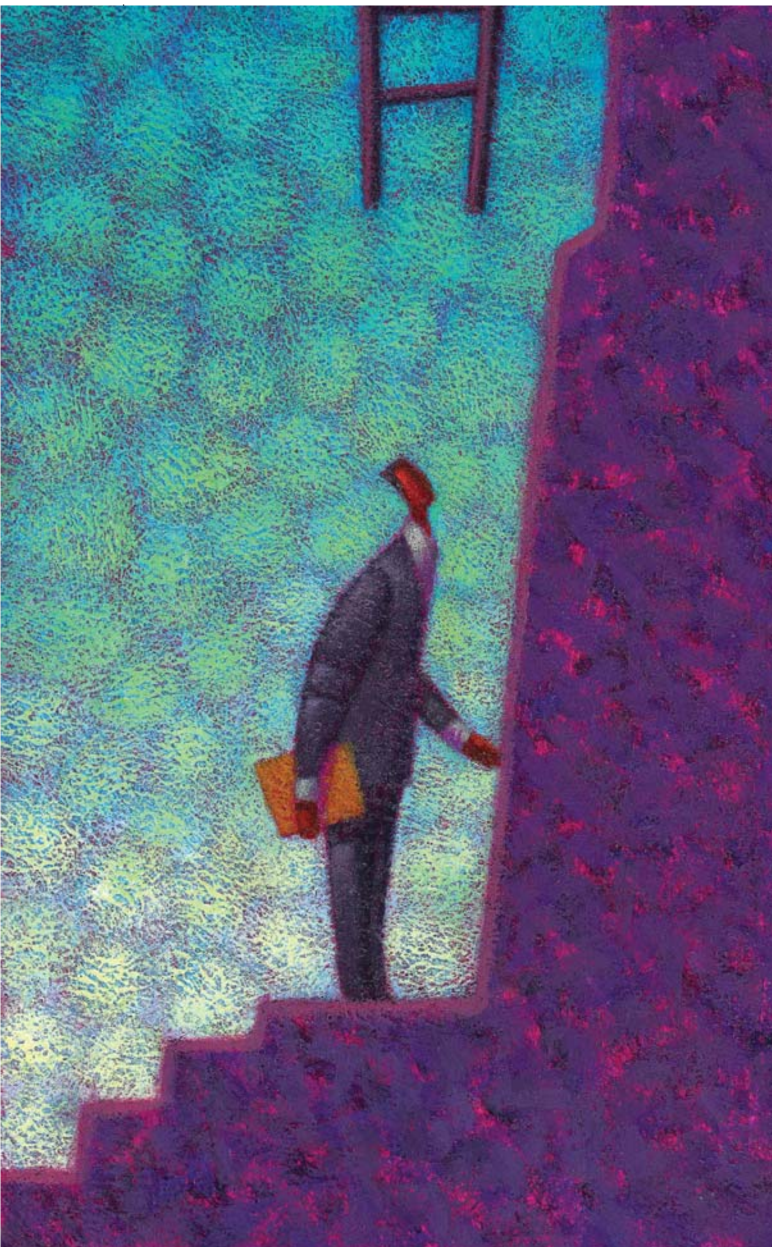
Launched in 1993, the MasterIndex of Consumer Confidence has proven to be an excellent barometer of the general consumer pulse in Asia/Pacific. The twice annual survey analyzes prevailing consumer perceptions of economic conditions for the next six-months and is regarded as a valuable tool in the understanding of shifts in consumer sentiment, as well as in the identification of changes in market paradigm.

In 2003, MasterCard established the MasterIntelligence Knowledge Panel comprising leading economists and business strategists from China, Hong Kong, Japan, Korea and South East Asia. The panel conducts research and provides insights on the economic and business environment in Asia/Pacific. The panel is headed by Dr. Yuwa Hedrick-Wong, Economic Advisor (Asia/Pacific), MasterCard Worldwide.

Today, MasterCard continues to demonstrate its commitment to the Asia/Pacific region by not only adding value with cutting edge research but also through sharing knowledge in new areas. Its knowledge leadership in Asia/Pacific is well recognized and unrivaled.

MasterCard
Worldwide

Global Economic Resilience: Five Years After 9/11



Five years have passed since September 11, 2001 (9/11), when suspected Al-Qaeda terrorists launched their attacks on the World Trade Center in New York City and the Pentagon in Washington, D.C.; with the aim of killing as many civilians and spreading as much terror as possible. Many people did die and terror did spread. One of the aims of the terrorists was also to bring down the US economy. While it is clearly premature to say that the war on terror has been won, the global economy has nevertheless proved to be much more resilient than previously thought. 9/11 and subsequent terrorist attacks have not only failed to create the intended global economic havoc, global economic growth has actually been stronger than ever before.

The Fear Factor

Things looked decidedly gloomier in the immediate aftermath of the 9/11 attacks. From an economic point of view, the 9/11 attacks could not have come at a worse time. In the third quarter of 2001, the US economy was still smarting from the bust of the tech stock bubble. In August 2001, industrial production fell by 0.8%, the 11th month of consecutive decline. Both the US and the world economy were seen as being at a particularly fragile moment and consumer confidence was extremely weak. In fact, the benchmark University of Michigan consumer confidence survey taken just before the 9/11 attacks (released on September 13) showed that it was at its lowest level in eight years. So it looked perilously likely that the 9/11 attacks were the final nudge that would push the economy into a recession.

Both the US and the world economy were seen as being at a particularly fragile moment

Not surprisingly, many commentators predicted doom and gloom economic scenarios. At the Forbes CEO Forum, held just two weeks after 9/11 in Singapore where over 600 CEOs of leading global multinationals and large regional companies gathered, the well known investment advisor, Dr. Marc Faber, stated that, "American consumers will fall off the cliff in the next six months." This sentiment was echoed far and wide by many more pundits and analysts.

In the immediate aftermath, two types of prognostications were generally offered by analysts as well as the mass media. The first concerned the direct economic impact of the terrorist attacks, identifying vulnerable sectors such as the travel and airline industries as being most exposed to a steep decline in demand. Drawing on past experiences, many analysts quite accurately forecasted a precipitous drop in personal travel, albeit for a relatively short duration.[1] Others assessed the immediate economic impact on New York City itself, due to interruption of a wide range of business activities. Most anticipated that, again quite accurately, over a hundred thousand jobs would be lost in New York City in the months ensuing, with lost economic production amounting to 3 to 5% of the total in 2000.[2] These impacts, however, were seen to be of short term nature, assuming no new terrorist attacks.

The second, and much more alarming, scenario concerned the long-term economic effects of the attacks. A typical refrain heard again and again was that "the world had changed forever," as if a golden age had abruptly ended. The long-term economic outlook appeared to have switched overnight from sunny skies to foreboding dark clouds and brewing storms. Interest rates were

Heard again and again was that "the world had changed forever," as if a golden age had abruptly ended

projected to rise and investment drop with devastating consequences for consumers and businesses alike.[3] Other commentaries extrapolated from the expected and severe short-term impacts to long-term trends, usually along the line of "if things are going to be bad in the next few months, they are going to be lot worse when the bad situation continues into next year, and the year after that..." They predicted that long-term economic ills would come as a result of the terrorist attacks, raising business costs and plunging productivity, which would shackle the economy with inefficiency and rob it of dynamism.[4]

Many of these dire scenarios were meant not just for the US, but the global economy as well. Arguments underpinning these scenarios usually pointed to the US being the biggest and strongest economy in the world, and when it goes, there is no one else to take its place. So a global recession becomes the next logical disaster to unfold. Japan's economy was already so anemic after a decade of stagnation that it was considered to be no help whatsoever. Emerging markets were seen to be in even greater peril because of their supposed dependence on US demand. Furthermore, the global economy was seen as more synchronized than before; thus a US recession was projected to rapidly engulf the rest of the world as well.[5]

Resilience

None of these scenarios has come true in the last five years. What actually happened has been quite extraordinary. The short-term impact has indeed been significant, but they were just that, short term. As shown in Table 1, real GDP growth in the US did not slip into negative territory at all. There was a significant slowdown in growth in 2001, which ended the year with only 0.3% of real GDP growth. But a large part of the slowdown was a consequence not of the terrorist attacks, but the meltdown of tech stocks the year before.

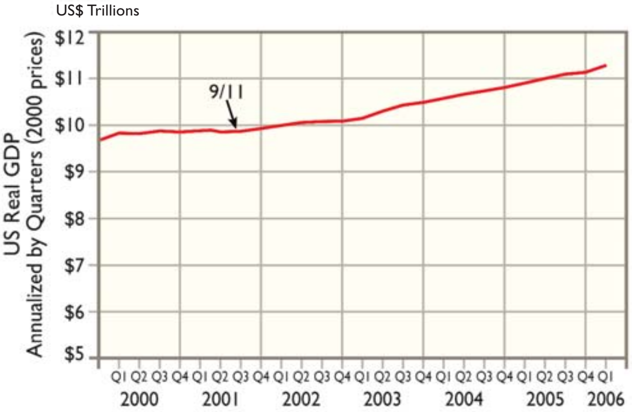
Table 1

	2001	2002	2003
US Real GDP	0.3%	2.2%	2.6%

Source: IMF

Taking a longer term perspective, it is clear that the 9/11 attacks have not derailed economic growth in the US, as shown in Chart 1. The curve representing quarterly changes in real GDP (annualized) had been quite flat even before 9/11, and it stayed that way for a few quarters longer. Then it started to climb steadily to today.

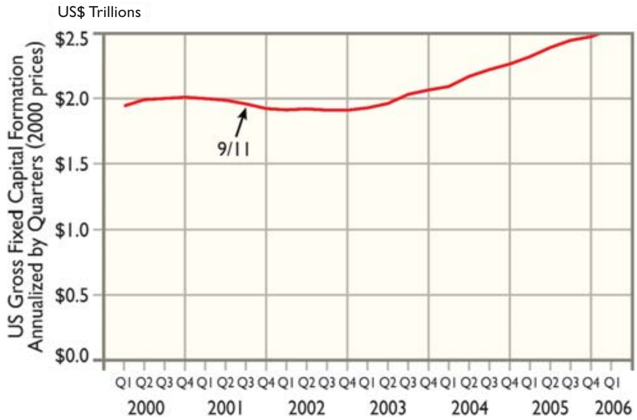
Chart 1
Resilience of the US Economy – Real GDP



Sources: IFS, IMF

If the terrorists' aim of bringing the economy to its knees had succeeded, the phenomenon referred to as "liquidity trap" by John Maynard Keynes would have occurred. This is a situation where businesses become so pessimistic, and consumers so cowered, that investment and consumption would not expand regardless how low interest rates are, or how much cash businesses and consumers have. While the Federal Reserve did cut interest rates aggressively after 9/11, there was no liquidity trap as Chart 2 illustrates. Investment bottomed out around 1Q 2002, and then resumed a healthy pace of growth.

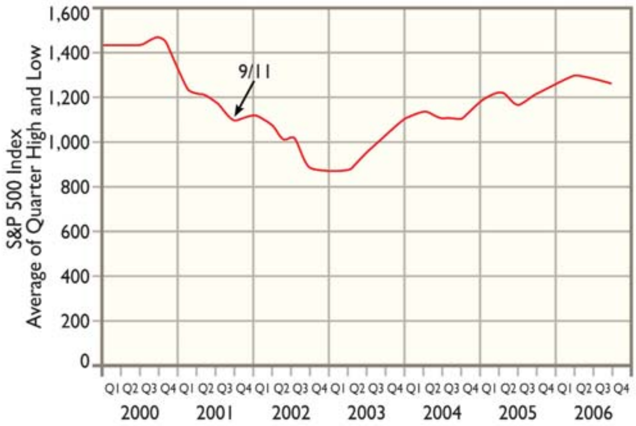
Chart 2
Resilience of the US Economy – Investment



Sources: IFS, IMF

The 9/11 attacks had intimidated neither consumers nor businesses. Contrary to the prediction by Dr. Faber, American consumers shrugged off the attacks and carried on.

Chart 3
Resilience of the US Economy – Stock Market



Source: Econstat

Turning to the stock market, which is a leading indicator representing investors' collective economic outlook, it is clear that there was a significant degree of uncertainty, which persisted until the 1Q 2003, as illustrated in Chart 3 (S&P 500 Index). An interesting feature of the chart is, however, that the index had been declining since mid-2000, before 9/11. Instead of accelerating the decline, 9/11 actually halted it for about half a year to mid-2002, before it dropped further until it hit the bottom by end of the year. There is no question that major stocks in tourism, airlines and airplane manufacturing were hard hit. The overall market outlook, however, could hardly be said to have been sunk by 9/11.

The growth of the economy and the rebound of the stock market had faced strong headwind as well, not least as a result of rising world price of oil as shown in Chart 4. In fact, oil prices have more or less tripled since 9/11. Yet, defiantly, growth continued.

Evidence of the failure of terrorist attacks to bring down the economy is not limited to the US. London was simultaneously attacked by suicide

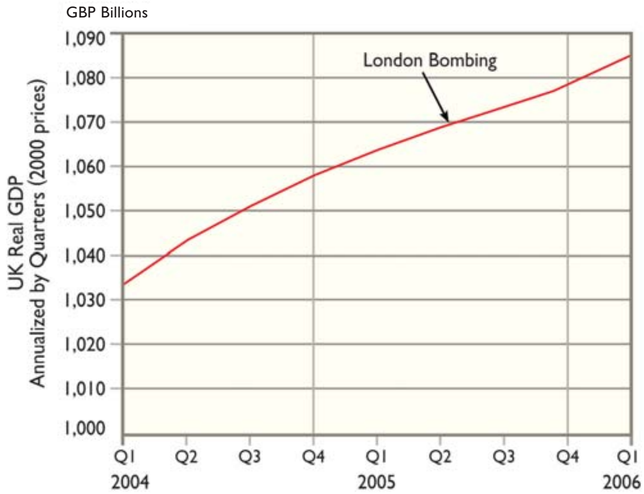
Chart 4 World Price of Oil

Source: DOE

bombers in its underground and on a bus in mid-2005. As shocking and tragic as the attacks were for the victims and their families, from the perspective of real GDP growth, the economy of the UK hardly noticed it, as shown in Chart 5. Growth continued essentially uninterrupted.

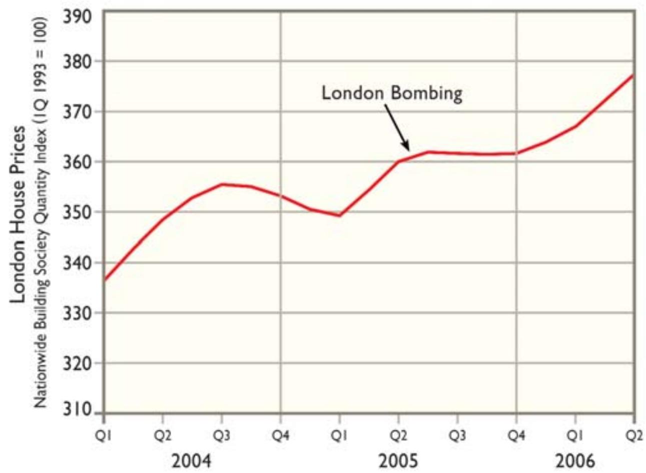
Even when we narrow the focus to just the City of London itself and to review the data of the property market, it is the same story.

Chart 5
Resilience of the UK Economy – Real GDP



Sources: IFS, IMF

Chart 6 Resilience of the UK Economy – London Property Market



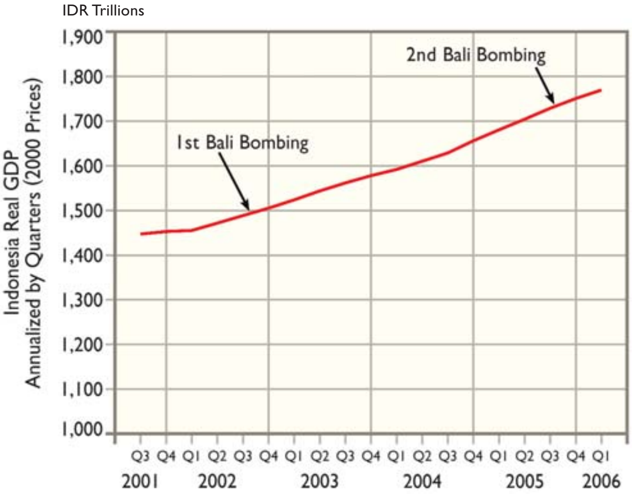
Source: Nationwide Building Society

London returned to its normal bustling business pace in a matter of days. As shown in Chart 6, there was no precipitous drop in London's property market—businesses did not abandon their prime downtown locations; commuters continued to journey to London for their daily work and routines; and life resumed after a brief interruption.

Some commentators suggest that it is not surprising that the UK in general and London in particular are resilient in the face of terrorist attacks since they had faced the terror tactics and attacks of the IRA for decades.

However, to round out our review of global economic resilience, it is useful to look at Indonesia, a developing country a hemisphere away from the developed West. When 9/11 came in 2001, Indonesia was still struggling with the devastating financial crisis of 1997, a mere four years earlier. It already had a third president installed since the 1997 crisis brought down President Suharto, the long-ruling “strongman” in the previous three decades. So Indonesia was both politically and economically in a very weak position when the first Bali bombing occurred in October of 2002, killing over 200 people and wounding many more. Worse still, the terrorists struck not once, but twice. The second Bali bombing came in October 2005. Bali was chosen as the target in both attacks because it was (and still is) a favorite destination for Western tourists. Again, as shown in Chart 7, both Bali bombings had no discernable impact on Indonesia’s overall economy.

Chart 7 Resilience of the Indonesian Economy – Real GDP



Sources: IFS, IMF

The evidence is clear, terrorist attacks have not had their intended economic impact either in the US or elsewhere. Doom and gloom scenarios notwithstanding, the resilience of the global economy so far has been sufficiently robust to weather these attacks. Why?

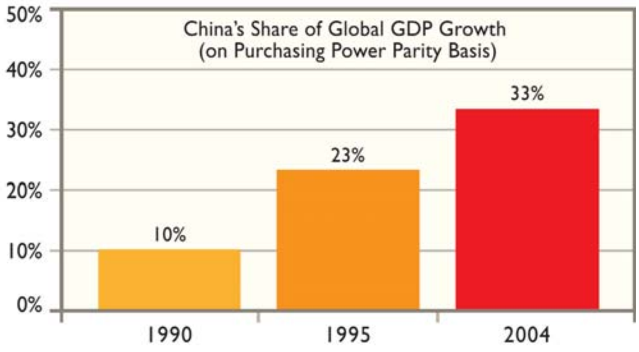
The Bali bombings had no discernable impact on Indonesia’s overall economy

The New Global Economy

The fact is that since 2000, per capita GDP in the world has been growing at an amazing 3.2% per year. The last episode of long and steady economic growth was in the decades of the 1950s to early 1970s, when per capita GDP in the world grew by about 2.9% per year, a period during which massive growth momentum was generated by Europe and Japan’s post-war reconstruction. Before that, the previous long growth period was during the second half of the 19th century when Western Europe and North America benefited from technological changes resulting from the Industrial Revolution and the subsequent expansion of trade. Per capita GDP growth at that time was estimated at around 1.3% per year.[6] As pointed out by Pam Woodall of The Economist, the first decade of the 21st century could see the fastest growth in the world’s per capita income not in the last two hundred years, but in all of human history.

A critical factor behind this extraordinary development is the rising role of emerging markets. China's rise as an emergent global economic giant is of particular importance, both in terms of speed and scope. Back in the 19th century, the industrializing US and Great Britain took about 50 years to double their real per capita income. It is taking China less than 9 years to do so today. According to estimates by the World Bank, since China's economic reform and market liberalization, over 300 million people in China had been lifted out of poverty, the most massive poverty alleviation success ever recorded in human history. In recent years, some 30 million manufacturing workers in China could be said to be working directly for the global market; and their numbers are set to increase to 60 million by the end of the decade.[7] This represents a tremendous positive supply shock to the global economy. According to Goldman Sachs, China will be the world's largest economy in about two decades' time. As illustrated in Chart 8, China's share of global GDP growth, calculated on the basis of purchasing power parity, increased from 10% in 1990 to 23% in 1995. By 2004, it increased further to an astonishing 33%.

Chart 8 China and Positive Supply Shock



Source: World Bank Data

The global economy is much more resilient than before because emerging markets are playing a much bigger role in driving growth and trade globally. As a result, growth is spread more evenly, between both the developed economies and emerging markets, as well as between emerging markets themselves. New middle-class consumers in emerging markets will drive global demand in the coming years in ways never seen before. About one billion consumers in emerging markets will join the ranks of the middle class in the next two decades,[8] enthusiastically driving global demand for goods and services with their aspirations and their wallets. These are not consumers likely to cower to terrorist attacks.

Emerging markets are achieving higher growth and greater prosperity by embracing free trade and market liberalization with faster speed and more consistency in their macroeconomic policies. And their stronger presence in the

Emerging markets are achieving higher growth and greater prosperity by embracing free trade and market liberalization

global economy is what has made the latter more resilient. So resilience and the free market are closely related. It is under conditions of a free market that individual entrepreneurial efforts are encouraged and rewarded. The essence of such entrepreneurial efforts is being ever vigilant to hitherto undetected business opportunities and to take risks in seizing such opportunities. Therefore, the millions of individual entrepreneurs in emerging markets are all making their contributions, however small individually, but massive collectively, to strengthening the resilience and dynamism of the global economy. They are the real reasons why the terrorists' intended objective of bringing down the global economy has failed. These entrepreneurs' growing rank and file will also ensure that the global economy will be able to withstand new terrorist attacks, if and when they happen, and shrug them off to continue to generate economic growth and spread prosperity to peace-loving people everywhere.

1. For example, see "The Social Impact on the Hotel & Tourism Sector of Events Subsequent to 11 September, 2001," ILO Briefing Paper, October 2001.

2. "Economic Impact of the September 11 World Trade Center Attack," Fiscal Policy Institute, September 28, 2001.

3. "Rethinking the Economy," Businessweek Online, October 1, 2001.

4. "How big the blow?" The Economist, September 20, 2001.

5. "Ill winds" The Economist, September 20, 2001.

6. Maddison, A. 2001. The World Economy: A Millennial Perspective. OECD.

7. MasterCard Asia/Pacific estimates.

8. MasterCard Asia/Pacific estimates.

MasterCard
Worldwide

INSIGHTS

Ongoing research and analysis on business dynamics, financial policies
and regulatory activities in the Asia/Pacific region

For additional copies of Insights or for additional information,
contact Ms Georgette Tan, MasterCard Worldwide at georgette_tan@mastercard.com
or you can visit www.masterintelligence.com

Past Insights Issues

Second Quarter 2004
Focus on Korea– An Examination of Korea's Consumer Debt Bubble
Focus on Hong Kong– Hong Kong's Rapid Rise in Personal Bankruptcy
Benefiting from the Synergy between Travel and Retail
Towards a World Class Payment Card System in China
Estimating the Social Cost of Cash– Thailand and Malaysia

Third Quarter 2004
How the Consumer Debt Bubble in Korea could have been Avoided
How Comprehensive Positive Credit Reporting could Enhance Capital Productivity in Australia
The Cost of Cash in Japan

Fourth Quarter 2004
Credit Card Outstanding and Household Debt– Myth and Reality

First Quarter 2005
A Challenging and Promising Future: Potential Impact of Low Cost Carriers in Asia/Pacific
Shocks, Resilience and Consumer Confidence in Asia/Pacific– 2003 to 2005
Women Travelers of Asia/Pacific– A New Powerhouse
Thailand's Consumer Market– The Next 10 years of Rising Prosperity and Sophistication

Second Quarter 2005
The Future of Malaysia's Consumer Market– Dynamic Transformation and Rising Affluence
Taiwan's Future Consumer Market– Achieving Maturity
Women Consumer Market in Australia– Uniquely Australian
Can Asia/Pacific Stand Alone Economically and What Could Happen in the Next US Economic Downturn?

Third Quarter 2005
Chip Migration in Asia/Pacific– The Payments Industry's New Frontier
Women Consumer Market in Japan– The Super-Aging Society
Kuala Lumpur as a Travel-Shopping Destination
Women Consumers of Korea– Demographic Trends and Women's Changing Roles
The Corporate Superpower of the 21st Century: Synergy between Chinese and Indian Business

Fourth Quarter 2005
Women Consumers of China– The Powerhouse within a Powerhouse
Rewards and Risks of Living in an Inter-Connected World
The Future of Tourism in Asia/Pacific

First Quarter 2006
The Changing Asian Banking Landscape: Challenges and Opportunities
Benefiting from Globalization: Lessons Learned from China
2006 Interest Rate Outlook in Asia and Potential Impact on Consumer Spending

Second Quarter 2006
China's Emerging Consumer Market– A Geographical Perspective
10 Dynamic Trends Shaping the Future Consumer Markets of Asia
The Interest Rate Outlook and Implications for Consumer Banking in Thailand, Indonesia and Malaysia
China and the New Global Economy
China's Currency in the Global Currency Market– Challenges of Asymmetry

Third Quarter 2006
Visions of the Future– Perspectives of the Young Elite of Indonesia
Vietnam's Economic Future and Banking Sector Implications
The Heart of Commerce: Driving Global Business

MasterCard
Worldwide