

THE AUSTRALIAN STOCK MARKET DEVELOPMENT: PROSPECTS AND CHALLENGES

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Abstract

This paper highlights the origin and development of the Australian stock market. The country has three major stock exchanges, namely: the Australian Securities Exchange Group, the National Stock Exchange of Australia, and the Asia-Pacific Stock Exchange. These stock exchanges were born out of a string of stock exchanges that merged over time. Stock-market reforms have been implemented since the period of deregulation, during the 1980s; and the Exchanges responded largely positively to these reforms. As a result of the reforms, the Australian stock market has developed in terms of the number of listed companies, the market capitalisation, the total value of stocks traded, and the turnover ratio. Although the stock market in Australia has developed remarkably over the years, and was spared by the global financial crisis of the late 2000s, it still faces some challenges. These include the increased economic uncertainty overseas, the downtrend in global financial markets, and the restrained consumer confidence in Australia.

Keywords: Stock Market, Australia, Stock Exchange, Capitalization, Stock Market

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1. Introduction

Stock market development is an important component of financial sector development, and it supplements the role of the banking system in economic development (Goldsmith, 1969; Boot and Thakor, 1997). Specifically, stock markets assist in price discovery, liquidity provision, the reduction in transactions costs, and risk transfer. They reduce information costs through the generation and dissemination of information on firms – thereby, leading to efficient markets, in which prices incorporate all the available information (Yartey and Adjasi, 2007).

Stock markets have proved to lower the cost of mobilising savings, thereby facilitating investments into the most productive technologies (Greenwood and Smith, 1996). Other studies also show that international risk-sharing, through internationally integrated stock markets, improves resource allocation and accelerates growth (Obstfeld, 1994).

Stock markets provide market liquidity that enables the implementation of long-term projects with long-term payoffs, thereby promoting a country's economic growth (Levine, 1991; Bencivenga, *et al.*, 1996). Moreover, efficient stock markets not only make resources available to investors, but they also facilitate the inflow of foreign financial resources into the domestic economy (Yartey and Adjasi, 2007). The

key role of stock market liquidity in economic growth is further supported by Yartey and Adjasi (2007) and Levine and Zevros (1998). All of these authors have argued that, generally, stock markets provide market liquidity that enables the implementation of long-term projects with long-term payoffs, thereby promoting a country's economic growth.

Even the most recent studies have supported the vital role that stock markets play in economic development (Bolbol *et al.*, 2005; Odhiambo, 2011). The role of the stock market in the development of an economy cannot, therefore, be overstated.

The Australian stock market is one of the most developed stock markets in the world. Although there are several stock exchanges in Australia, the main ones are three, namely: the Australian Securities Exchange Group, the National Stock Exchange of Australia, and the Asia-Pacific Stock Exchange. Of the three, the Australian Securities Exchange Group is the most dominant exchange by far; and it was formed in 1987.

The Australian stock market plays an important role in the process of economic development in Australia through various ways. These include the mobilisation of domestic savings to bring about the reallocation of financial resources from dormant to active agents, and the enhancement of the inflow of international capital. Most of the capital raised by companies in Australia is raised through the stock

market. However, despite the importance of the stock market in the Australian economic-growth process, not much research has been done on the country's stock market. The documentation on the Australian stock market is very scant.

Although considerable work has been done on selected issues of the stock market (Dvornak, and Kohler, 2007; Karunanayake et al., 2010; Akyol and Foo, 2012), less has been done to demonstrate the full picture of the country's stock market. This paper, therefore, aims to fill this gap, and to put the Australian stock market in the spotlight, by highlighting the origin and growth of the Australian stock market – since the establishment of the Australian Securities Exchange, in 1987 – through to 2011.

The rest of this paper is organised as follows: Section 2 covers the origin of the Australian stock market. Section 3 outlines the reforms that have been implemented to revitalise the stock market; while section 4 tracks the growth of the Australian stock market, in response to the reforms. Section 5 highlights the challenges facing stock market development in Australia. This is followed by the concluding section.

2. The Origin of the Stock Market in Australia

The Australian stock market is made up of three stock exchanges, namely: the Australian Securities Exchange Group (ASX), the National Stock Exchange of Australia (NSX), and the Asia-Pacific Stock Exchange (APX). These stock exchanges were born out of a string of stock exchanges that merged over time.

Australian Securities Exchange Group (ASX)

The Australian Securities Exchange Group (ASX) is Australia's primary securities exchange. Its origins as a national exchange go back to as early as 1987. The ASX was formed in 1987 after the Australian Parliament had drafted legislation that enabled the amalgamation of six independent state-based stock exchanges. Each of those exchanges brought with it a history of share trading dating back to the 19th Century. In 2006, the Australian Stock Exchange merged with the Sydney Futures Exchange, and initially operated under the name of the Australian Securities Exchange.

Later, however, ASX launched a new group structure to better position itself in the contemporary financial market environment. From August 2010, the Australian Securities Exchange has been known as the ASX Group (Australian Securities Exchange Group (ASX, 2013).

In 1861, 10 years after the official advent of the Gold Rush, Australia's first stock exchange was

formed in Melbourne. More than half a century later, the Australian Associated Stock Exchanges (AASE) was established in 1937. Since 1903, the state stock exchanges met on an informal basis, but in 1936 Sydney took the lead in formalising the association. Initially, this involved the exchanges in Adelaide, Brisbane, Hobart and Sydney. Melbourne and Perth joined soon after.

Through the AASE, the exchanges gradually brought in common listing requirements for companies and uniform brokerage, as well as other rules, for stockbroking firms. They also set the ground rules for commissions and the flotation of government and semi-government loan raisings (ASX, 2013).

In April 1987, the Australian Stock Exchange Limited (ASX) was formed, through incorporation, and under the legislation of the Australian Parliament. The formation of this national stock exchange involved the amalgamation of the six independent stock exchanges that had operated in the states' capital cities (ASX, 2013).

In the same year, the Stock Exchange Automated Trading System (SEATS) was launched. It was a far cry from the original open outcry system, which had dated back over 100 years (ASX, 2013).

In 2006, after several years of market commentators, broker analysts and others called for a merger, and ASX finally merged with the Sydney Futures Exchange (SFE), which had been formed in 1960. Developments amongst international exchanges, such as the NYSE and Euronext, reinforced the strategic rationale for merging ASX and SFE. This combined entity became the ninth largest listed exchange group globally; and it represented an important milestone in the development of Australia's capital markets (ASX, 2013).

The ASX launched a new brand structure in August 2010, when it became known as the ASX Group (ASX). The ASX is an umbrella term developed to reflect the role of ASX Limited as the holding company of a group with a diverse range of market-service activities linked by a common commitment to provide the infrastructure Australia needs to create a globally competitive capital market and a vibrant, robust economy (ASX, 2013).

The ASX Group is a multi-asset class, vertically-integrated exchange group, whose activities span primary and secondary market services, including the raising, allocation and the hedging of capital flows, trading and price discovery (via Australian Securities Exchange); central counterparty risk transfer (via subsidiaries of the ASX Clearing Corporation); and securities settlement for both the equities and fixed-income markets (via subsidiaries of the ASX Settlement Corporation).

The ASX functions as a market operator, a clearing house, and a payments-system facilitator. It also oversees compliance with its operating rules; it promotes standards of corporate governance among Australia's listed companies; and it helps to educate

retail investors (ASX, 2013). The domestic and international customer base of ASX is diverse. It includes issuers (such as corporations and trusts) of a variety of listed securities and financial products; investment and trading banks; fund managers; hedge funds; commodity-trading advisers; brokers and proprietary traders; market-data vendors; and retail investors.

In addition to its role as a market operator, the ASX relies on a range of subsidiary brands to monitor and enforce compliance with its operating rules. These subsidiaries are: i) The Australian Securities Exchange, which handles ASX's primary, secondary and derivative market services. It encompasses ASX (formerly the Australian Stock Exchange) and ASX 24 (formerly the Sydney Futures Exchange); ii) The ASX Clearing Corporation, which is the brand under which ASX's clearing services are promoted. It also encompasses ASX Clear (formerly the Australian Clearing House) and ASX Clear (Futures) (formerly the SFE Clearing Corporation); iii) The ASX Settlement Corporation, which is the brand under which the ASX Group's settlement services are promoted. It, furthermore, encompasses the ASX Settlement (formerly the ASX Settlement and Transfer Corporation) and Austraclear; as well as iv) ASX Compliance, which is the brand under which services are provided to the ASX Group for the ongoing monitoring and enforcement of compliance with the ASX operating rules. This entity replaces the ASX Markets Supervision (ASX, 2013).

The ASX Group recognises that its ability to achieve its commercial and operating goals is dependent on the value its services deliver to customers. To that end, the ASX Group aims to ensure that its: i) Markets are Australia's pre-eminent forum for capital formation (both equity and debt), capital allocation and corporate control; ii) Market information: trading and corporate action data that are high quality, timely and offer a range of delivery options; iii) Clearing facilities that improve capital management (position netting and margin offsets) and operating efficiency (via straight-through processing); iv) Securities depository and settlement facilities that deliver efficient depository and settlement management (payments netting, electronic holdings, payments and corporate actions, and straight-through processing); v) Processes and systems that are provided fairly, reliably and with transparency (prices, spreads, liquidity, latency and access); in addition to the monitoring and enforcement of compliance with its operating rules; and thereby, generating confidence in the markets that rely on ASX Group infrastructure (ASX, 2013).

National Stock Exchange of Australia (NSX)

The National Stock Exchange of Australia (NSX) is a stock exchange based in Newcastle, Australia; and it

is the second biggest stock exchange in Australia after ASX. It is owned and operated by NSX Limited, which is listed on the Australian Securities Exchange. On 20 December 2006, the Newcastle Stock Exchange formally sought approval, and was granted a change of name by the Minister to the National Stock Exchange of Australia; and it still trades under the acronym of NSX (National Stock Exchange of Australia "NSX", 2013).

The NSX lists various companies within Australia and overseas that meet its listing rule requirements. Trading is all-electronic, based on time and price priority, by using NETS (the NSX Electronic Trading System), which is based on the NASDAQ OMX X-stream trading platform. The settlement of securities is electronic (NSX, 2013).

The history of the NSX dates back to 1937 when it was founded. In the past, it listed as many as 300 local and regional companies, some of which grew to become significant businesses. It was reactivated in its present form in 2000 (NSX, 2013).

NSX Limited acquired the Bendigo Stock Exchange (BSX) on 12 April 2005. The BSX has facilitated the trading of Bendigo Community Banks in an uncertified market. The BSX was renamed the SIM Venture Securities Exchange in 2010, with the objective of listing securities that have clean-tech credentials. The bank securities continued to be traded on a BSX Board within the SIM market (NSX, 2013).

Asia-Pacific Stock Exchange (APX)

The Asia-Pacific Stock Exchange (APX) is a securities exchange in Australia with a market license granted by the Australian Securities & Investments Commission in August 2004. The APX provides opportunities for small, medium and large growth-oriented companies to raise the capital they need for expansion from a diversified range of domestic and international investors, especially from the Asia-Pacific region. The APX offers Chinese market participants an alternative listing venue to the Shanghai and Shenzhen stock exchanges in China (Asia-Pacific Stock Exchange "APX", 2013).

As a securities exchange, the APX provides 'listing' facilities to companies and securities issuers, as well as 'trading' facilities for stock brokers, traders and investors to buy and sell shares/securities. The securities that can be traded on APX include: shares issued by companies, units issued by trusts, and other pooled investment products, as well as fixed interest instruments, such as bonds (APX, 2013).

The APX's new Listing Rules have been approved by the Australian Securities and Investments Commission (ASIC) and the Australia Federal Treasury on 10 November 2011. The APX is working on the implementation of its new trading system. The APX aims to be operating with new Listing Rules, new Business Rules and a new Trading System from the first half of 2013 (APX, 2013).

The Australian Securities and Investments Commission has the responsibility for the supervision of real-time trading on Australia's domestic licensed financial markets, and the supervision of their conduct by the participants (including the relationship between the participants and their clients) on those markets.

3. Stock Market Reforms in Australia

The Australian stock market has undergone a period of reform, in order to spearhead the development of its market. In 1984, brokers' commission rates were deregulated. Commissions have gradually fallen ever since, with rates today as low as 0.12% or 0.05% from discount internet-based brokers.

In 1987, the formation of the Australian Stock Exchange Limited came about – with the launch of the Stock Exchange Automated Trading System (SEATS). It was a far cry from the original system, which had dated back over 100 years. During that time, there had been three different forms of trading on the Australian stock exchanges. The earliest was the auction-based call system, which saw a stock exchange employee (the Caller) call the name of each listed security in turn, while the Members bid, offered, sold or bought the stock at each call. This system proved inadequate in handling the increased volume of trading during the mining booms. It was replaced by the 'post' system in the early 1960s, which involved stocks being quoted on 'posts' or 'boards' (ASX, 2013).

In 1989, the normal floor trading was extended – with the introduction of an after-hours electronic trading platform. Ten years later, some stock exchanges closed their trading floors and started 24-hour screen trading. Electronic trading commenced as the option market moved from floor to screen in 1997. A phased transition to the electronic CLICK system for derivatives began as well. In terms of the settlement system, the FAST system of accelerated settlement was established in 1993; and the following year, the CHES system was introduced, superseding FAST. The evolution of the trading systems improved the efficiency of the Australian stock market (ASX, 2013).

Over the last thirty years, technological advances have allowed the introduction of automatic trading systems characterised by lower costs per trade, higher speed of execution, and a greater ability to absorb an ever-increasing demand for trading services. In addition, barriers to entering the trading business have been lowered, as electronic trading venues are less costly to set up and do not require the physical presence of members in a central location. This development is stimulating a growing number of venues, and enabling a greater variety of products, as well as the specialisation of trading services.

The speed of development of the information facilitation network technology reinforces a more rapid pace of change. As a result, a number of proprietary trading systems have emerged, seeking to

take market share away from the traditional exchanges. Moreover, the electronic networks of communication provide much more efficient methods for the dissemination of trading data and other information to financial intermediaries and investors (Australian Financial Markets Association “AFMA”, 2009).

Electronic trading platforms have enabled more efficient trading of financial instruments by professionals. Wholesale market participants and the professional clients they serve have a similar degree of knowledge. They benefit from more timely execution and lower transactions costs. Electronic trading is, therefore, resulting in a more dynamic environment for financial market operators, which have placed subsequent demands on the Australian Securities and Investments Commission and the Government to provide an appropriate regulatory environment (AFMA, 2009).

To promote the growth of the stock market, the stamp duty on share transactions was halved from 0.3% to 0.15% in 1995. The ASX had agreed with the Queensland State Government to locate staff in Brisbane in exchange for the stamp duty reduction there. However, the other states followed suit – so as not to lose brokerage business to Queensland. In 2000, stamp duty was abolished in all states, as part of the introduction of the Goods and Services Tax (ASX, 2013).

In 2009, changes to the supervision of Australia's financial markets, that would enhance the integrity of Australia's financial markets, and another step was thereby taken in establishing Australia as a financial services hub in the region. The Government decided to provide for the Australian Securities and Investments Commission to perform the supervision of real-time trading on all of Australia's domestic licensed markets. This change meant that ASIC was now responsible for both the supervision and the enforcement of the laws against misconduct on Australia's financial markets (Australian Treasury, 2009).

As part of the Government's drive to improve the regulation of the financial industry, the Government decided to transfer the supervisory responsibility for Australia's financial markets to ASIC; since it was more appropriate for an agency of the Government to perform this important function – compared with the reform arrangements that would have required individual financial markets to self-supervise trading on their individual markets. This reform was in line with the move towards centralised or independent regulation in other leading jurisdictions.

It was important to have one whole-of-market supervisor who could help to consolidate the then individual supervisory responsibilities into one entity, streamlining supervision and enforcement, and providing complete supervision of trading on the market. However, the changes meant that ASIC became responsible for supervising trading activities

by broker participants, which took place on a licensed financial market, while individual markets – such as the ASX – retained responsibility for supervising the entities listed on them (Australian Treasury, 2009).

In 2010, the Corporations Amendment (Financial Market Supervision) Act 2010 was passed. This Act provided for a new type of rule called market-integrity rules. These rules were made by ASIC; and they applied to market operators, market participants, other prescribed entities and financial products traded on the relevant markets. These integrity rules were motivated by global equity markets undergoing considerable change. These equity markets are now overwhelmingly electronic and automated. Technology has increased the speed, the capacity, automation and the sophistication of trading for market operators and market participants. It has also opened the door for new types of market participants with innovative trading strategies.

High-speed traders are now becoming more prevalent. These trends are driving the market structure, irrespective of whether competition between market operators is introduced. In responding to these issues, the ASIC passed rules: i) To build confidence in the integrity of Australia's capital markets; ii) to protect retail investors; and iii) to facilitate international capital flows. These rules ranged from pre-trade to post-trade transparency. Market participants were obliged to make available the trade information on reasonable commercial terms and on a non-discriminatory basis (Australian Securities and Investments Commission "ASIC", 2010).

In 2011 and 2012, the ASIC Market Integrity Rules (Competition in Exchange Markets) 2011 and the ASIC Market integrity Rules (Competition in Exchange Markets) Amendment 2012 were passed, respectively. These rules were focused on improving competition and new entrants into the stock market. Market participants were obliged to share potentially explosive information with each other, timeously, in order to contain any potential risks. The Exchanges were also required to publish market information timeously (ASIC, 2011; ASIC, 2012).

Market operators were also made to notify ASIC, other market operators and participants, immediately, upon becoming aware of a technical problem (including a power outage) affecting a market operator's trading, compliance monitoring and reporting systems that might interfere with the fair, orderly or transparent operation of any Market.

Competition between market operators, together with the recent international trend towards trading in 'dark pools' (i.e. non-pre-trade transparent electronically accessible pools of liquidity) changed the price-formation process in Australia. Rules were put in place to consolidate the fragmented data across venues, as there was a need to balance the benefits to individual investors of 'trading in the dark' against the public good of contributing to price formation. This was particularly important, because the market prices of products are used by investors to value their assets, and by companies to raise funds.

Although the proliferation of dark pools to the same extent, as experienced in the U.S., is not expected in Australia, it was expected that the dark pools and other internal activities would rapidly grow in Australia. To manage this risk, the Australian stock exchange authorities proposed common pre-trade transparency and market integrity rules that would apply equally to market operators and market participants. These rules are designed to promote the use of pre-trade transparent orders. These arrangements limited the anticipated rapid rise in dark pools and their internalisation, as well as the potential of having a negative impact on the price-formation process (ASIC, 2010).

4. Stock Market Growth in Australia

The Australian stock market has responded largely positively to most stock-market reforms, but not so positively to others. In general, the Australian stock market has experienced strong growth in the size of the market and in its sophistication. To date, there are more than 2000 companies listed on the ASX – with a total market value of A\$1.3 trillion (ASX, 2013). The dynamic stock market in Australia reflects many years of innovation and development; and this stock market is among the fastest-growing and most sophisticated in Asia (AFMA, 2012).

The number of listed companies on the ASX increased from 1421 in 2002 to 1471 in 2003. A major increase in the number of listed companies was during the mid-2000s: from 1583 in 2004 to 1807 in 2005, and further to 1908 in 2006. In 2007, 2077 companies were listed on the ASX, before decreasing to 2043 in 2009. By 2012, there were 2056 listed companies on the ASX. Table 1 shows the number of listed companies on the ASX during for the period 1999 to 2012.

Table 1. Number of listed companies on the Australian Securities Exchange (1999-2012)

	1999	2000	2001	2002	2003	2004	2005
Number of Listed Companies on the Australian Securities Exchange	-	-	-	1421	1471	1583	1807
	2006	2007	2008	2009	2010	2011	2012
Number of Listed Companies on the Australian Securities Exchange	1908	2077	2086	2043	2072	2079	2056

Source: Australian Securities Exchange (2013)

The top 200 ASX companies are quite large; and they range in market capitalisation from approximately \$100 million to over \$200,000 million. The S&P/ASX 200 comprises approximately 81% of the domestic market by value. In the 2009/10 financial year, capital raisings – IPOs and secondary market raisings – were equivalent to 5.9% of total market capital. This was down from 7.5% in 2008/09 (ASIC, 2010).

As the Australian stock market developed over the years, in addition to their ASX listings, issuers have had a choice of whether to also offer their stock internationally. This gave rise to dual and cross-listed shares, and the American Depositary Receipt Programs, to facilitate foreign investor access to Australian listed shares. Australian issuers have also been able to access foreign pools of capital by listing on overseas markets. In July 2010, there were 29 companies listed on international exchange markets, where ASX was their home exchange market (ASIC, 2010).

Conversely, a number of large international companies now have secondary listings on the ASX. However, the broad exposure of Australian listed

corporates to international markets provides a visible reminder that global capital markets are heavily interconnected; and developments in international markets would be transmitted to Australian capital markets (ASIC, 2010).

The number of domestic listed companies in Australia also shows the growth of the Australian stock market as well. In 1988, there were 1380 listed domestic companies in Australia. The number, however, declined over the years to 957 in 1991, before taking an upward turn in the year that followed, recording 1030 listed domestic companies in 1992. The number of listed domestic companies kept increasing gradually over a number of years, until it slightly surpassed its 1988 level in 2003, recording 1405 companies. The number of listed-domestic companies in Australia reached a peak of 1924 in 2008. However, the aftermath of the late 2000s global financial crisis saw this number going down to 1882 in 2009, before it increased to 1913 in 2010 and to 1922 in 2011 (World Bank, 2012).

Table 2 below shows the number of listed domestic companies in Australia during the period from 1988 to 2011.

Table 2. Number of listed domestic companies in Australia (1988-2011)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Listed Domestic Companies	1380	1258	1089	957	1030	1070	1186	1178	1190	1159	1162	1217
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Listed Domestic Companies	1330	1334	1355	1405	1515	1643	1751	1913	1924	1882	1913	1922

World Bank Development Indicators (2012)

Since 1987, equity trading on the ASX exchange market has either taken place via the central limit-order book (CLOB), or it has been conducted via the crossing market. With the growth of the stock market, the ASX launched computer-based trading (SEATS) for a limited range of ASX-listed stocks in 1987. Stocks were gradually transferred from the trading

floor to the electronic central limit order book over a three-year period. This process was completed, and the ASX trading floor closed, in October 1990. More recently, other types of execution venues have become available, including new venues offered by ASX and by other parties (ASIC, 2010).

With the growth and development of the Australian stock market came the interconnection of trading in different markets, for example, the interconnection of trading on ASX and ASX 24. This interconnection means that price movements on ASX or in certain ASX securities flow through to trading on ASX 24 and vice versa. This occurs both in normal trading conditions, and also when there are extreme price movements. Therefore, any controls to address anomalous order entry, and to manage volatile trading conditions should be co-ordinated between derivative markets and markets trading the underlying securities (ASIC, 2010).

One of the most significant recent developments in Australian and global equity markets has been the dramatic growth in automated electronic trading. Stakeholders have benefited from the Australian stock market technological developments. These developments have improved the efficiency of markets. Trading costs, including exchange and brokerage fees, bid-ask spreads and settlement charges, have fallen. Developments in technology and execution venues have facilitated this growth. The use of algorithms – automated electronic trading activities whose parameters are set by predetermined rules – in Australia has grown rapidly over recent years; and this growth is expected to continue. Although it is not possible to measure directly, the ASX has estimated in its February 2010 review, Algorithmic trading and market access (ASX Review) that algorithms account for approximately 30 - 40% of ASX cash equity turnover (ASIC, 2010).

It is also interesting to note that specialised forms of high-speed algorithmic trading are now emerging (ASIC, 2010).

The growth of the Australian stock market can also be explained by using the stock-market capitalisation of listed companies, the total value of

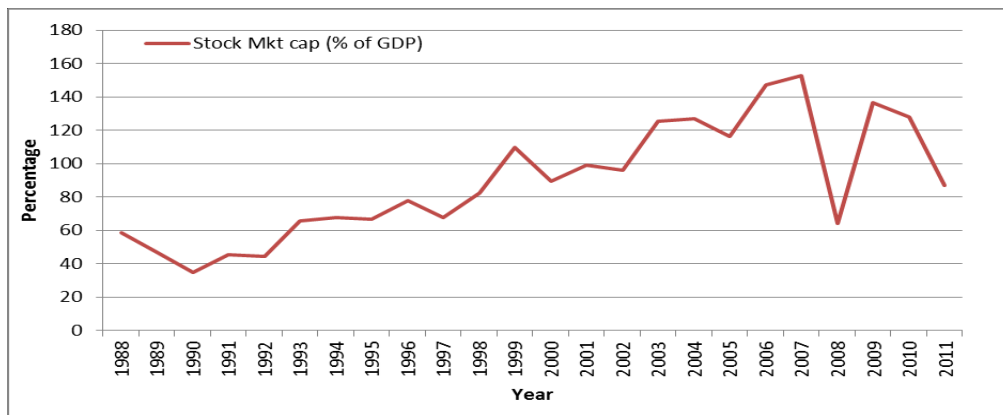
stocks traded, and the turnover ratio of stocks traded. The stock market size of Australia, as measured by stock-market capitalisation expressed as a percentage of GDP, had been growing at a modest pace between 1990 and 1998, although there were minor fluctuations here and there, reaching a market capitalisation of 109.8% of GDP in 1999. This stock market growth reached its peak in 2007, registering a market capitalisation of 152.7%. However, in the year that followed, the stock-market size shrunk sharply to 64.2%, less than half its size in the previous year.

This poor stock-market performance was, however, short lived as the market capitalisation rose to 136.5% in 2009. Since then, the Australian stock market size has not been stable; it has been fluctuating annually, somewhere below the 2009 mark (World Bank, 2012).

In terms of market liquidity, as measured by total value-traded/GDP and turnover ratio, Australia had a less liquid stock market, with the total value traded of less than 40% until 1998. The total value of stocks traded improved from 40.3% of GDP in 1998 to 50.4% in 2000 to 89% in 2005, before further increasing to a peak of 155.6% in 2007, and then sharply declining soon afterwards to 96.7% in 2008, and further down to 82.6% in 2009. In 2010, the total value of stocks traded improved to 107.3%, before declining again to 90.4% in 2011.

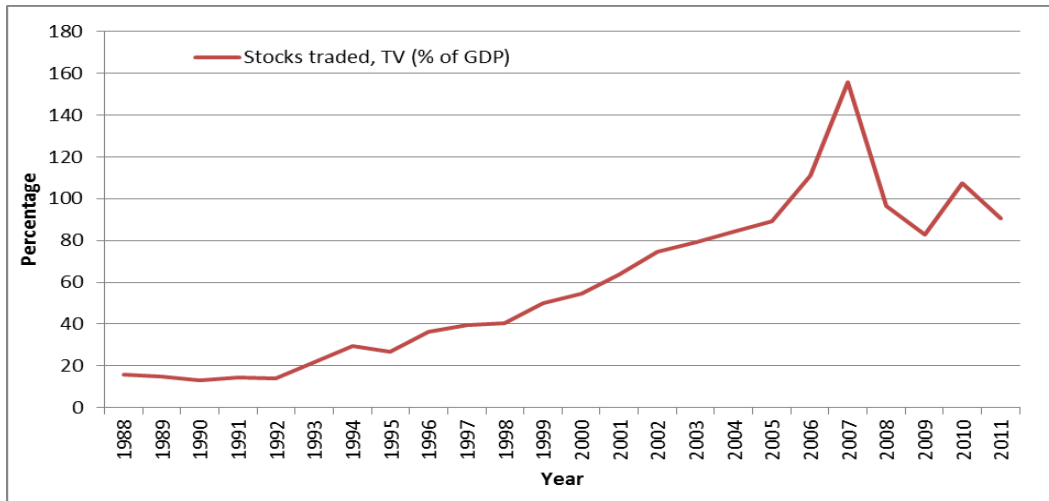
The turnover ratio depicted the same trend as that of the total value of stocks traded, reaching its peak in 2007 at 110.5%, before gradually declining over the years to 94% in 2011 (World Bank, 2012). It is, however, interesting to note that the liquidity of the Australian stock market was less than half of the U.K.'s over the same period. Figures 1 – 3 track the performance and growth of the stock market in Australia during the period 1988-2011.

Figure 1. Trends in Stock Market Capitalisation in Australia (1988-2011)



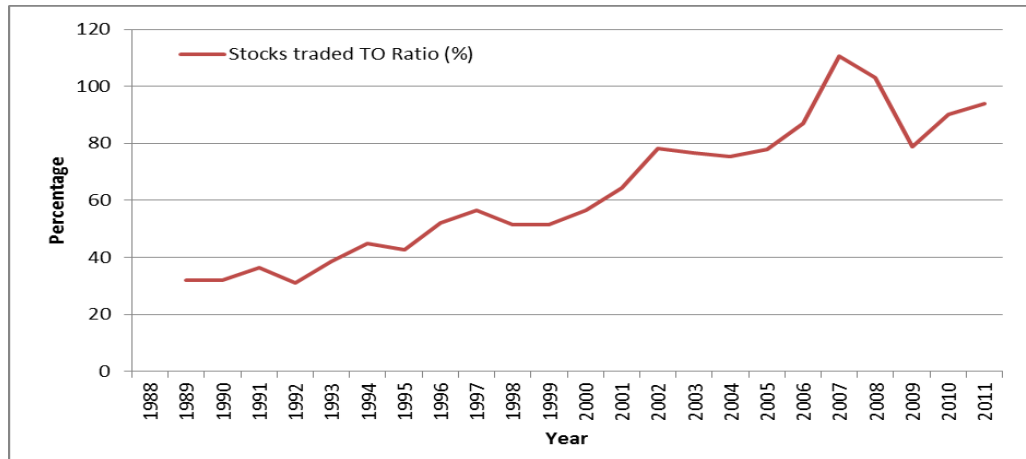
Source: World Bank Development Indicators (2012)

Figure 2. Trends in Total Value of Stocks Traded in Australia (1988-2011)



Source: World Bank Development Indicators (2012)

Figure 3. Trends in Turnover Ratio of Stocks Traded in Australia (1988-2011)



Source: World Bank Development Indicators (2012)

5. Challenges Facing the Stock-Market Development in Australia

Although the Australian stock market has been resilient to the global financial crisis, and has developed well over the years, it still faces several challenges. These include the increased economic uncertainty overseas, the downtrend in global financial markets, and the restrained consumer confidence in Australia. The regulatory and operational challenges, including the transfer of supervision to the Australian Securities and the Investment Commission, a new disclosure regime for short selling and securities lending, and a new set of market integrity rules also pose challenges to the Australian stock market (ASX, 2011).

ASIC shares its regulatory responsibility for Clearing Participants with the Australian Stock Exchange Group (ASX) that sets and monitors their capital requirements. Australian Prudential Regulation Authorities' (APRA) role in their supervision is very

limited, even though it is the primary prudential regulator in Australia. The splitting of prudential supervisory responsibilities emphasises the need for close co-operation, which is currently undertaken through the Council of Financial Regulators and bilaterally. However, there seems to be a need to assess whether the current regulatory structure is best suited to respond to the present and future challenges (IMF, 2012).

ASIC is an enforcement-focused regulator. In recent years, its reputation as an effective and credible enforcer of market regulation and corporate law has been enhanced through a series of high-profile and successful prosecutions. It is less focused on ongoing, proactive supervision. This is an area that requires increased attention to complement the current enforcement efforts and to add to their deterrent effect (IMF, 2012).

The extent of the ASIC independence is questionable; yet, it is the main stock-market regulator in Australia (IMF, 2012). Although the relevant

Minister has been provided with a series of powers ranging from the possibility to give directions to ASIC under the ASIC Act to being in charge of certain supervisory decisions in the case of market infrastructure; and though the use of these powers is generally subject to a clear and transparent process, and decisions relating to market infrastructure are made on the basis of the advice of ASIC, most of these powers have been rarely, if ever, used; and they do not generally include decision-making on day-to-day technical matters. The extent of these powers remains a concern (IMF, 2012).

ASIC is dependent on appropriations from the Government budget in its funding. A not insignificant amount of its funding is non-core, and is earmarked for specific projects. The relative share of this non-core funding has been increasing in the last few years, with the budget for 2012-13 continuing this trend. This raises concerns about the stability of ASIC's core funding at the same time that it has been assigned new and permanent responsibilities. ASIC's non-core funding is projected to decline from the fiscal year 2013-14 onwards. Although this is an encouraging development, it does not seem to go far enough in guaranteeing the sufficient financial independence of ASIC (IMF, 2012).

Since, in practice, non-core funding can be used only for the purpose for which it is granted, ASIC cannot effectively decide on the operational allocation of a significant part of its resources. Thus, resources allocated by ASIC to proactive supervision are very limited and leave a significant part of the regulated population subject only to reactive supervision. An increase in financial resources would better equip ASIC to meet the challenges it is facing (IMF, 2012).

Financial instability, globally, has left financial regulators in most jurisdictions more alert than ever – Australia included. As a result, the domestic and global efforts by authorities to stabilise the financial sector have left the Australian stock market subject to domestic and international regulation. The implementation of these regulations and reforms presents a significant challenge for the Australian stock market, as the stock market participants comply with these rules. Such rules include those related to disclosure integrity.

The Australian stock market also faces competition challenges. Despite the Australian Government announcement, in 2010, for the support of competition between markets for trading in listed shares in Australia (IMF, 2012), there is only one overwhelmingly dominant exchange market group in Australia: which is the ASX Group. It has approximately 98% of the total volume of on-exchange trading in equities and derivatives. The ASX Group, created by the merger of the Australian Stock Exchange and the Sydney Futures Exchange in July 2006, is today one of the world's top-10 listed exchange groups measured by market capitalisation. The ASX Group functions as a market operator and

clearing house. It also oversees compliance with its Operating Rules; and it promotes standards of corporate governance among Australia's listed companies. Until late 2011, it had no significant competition in Australia (IMF, 2012).

Sovereign debt crisis has not spared the Australian stock market either. During the past year, the equities markets exhibited no growth in traded value, principally due to investor concerns globally about the scale of European sovereign debt refinancing challenges, and indications of a more sluggish than anticipated U.S. economy (AFMA, 2011).

The openness of the Australian economy to the international economies has posed a significant threat to the Australian stock market. Although Australia is perceived to have a stronger, more resilient economy compared with its international peers – including a resilient banking system and a stable AAA sovereign credit – indicators of a more sluggish than anticipated U.S. economy and the European Union have had negative effects on the performance of the Australian stock market. The volatility in other stock markets is also felt on the Australian stock market.

The past two years will be remembered as years punctuated by rolling crises in the global markets, which have posed many challenges for the domestic market and its participants (AFMA, 2012). Investors were firstly unnerved as the U.S. struggled to increase its debt ceiling, and by the subsequent downgrade of its sovereign debt rating by Standard and Poor's. This was quickly followed and overtaken by the escalation of the European sovereign debt crisis, and more recently, by the prospect that China's economic growth could experience a less-than-soft landing (AFMA, 2012).

The U.S. and European crises, particularly, were the drivers of a "risk-off" mindset in the latter half of 2011. Only the prompt and co-ordinated action by global authorities in early 2012 encouraged investors to re-enter the markets (AFMA, 2012).

6. Conclusion

This paper has discussed the origins of the Australian stock market, the reforms undertaken to develop the stock market, the growth of the stock market, as well as the challenges facing stock-market development. Australia has a number of stock exchanges, although the major ones are three, namely: the Australian Securities Exchange Group, the National Stock Exchange of Australia, and the Asia Pacific Stock Exchange. The Australian stock market is well developed by international standards, and is one of the biggest stock markets in the world.

In order to foster stock-market development in the country, a number of reforms targeting the stock market have been undertaken over the years. These include the deregulation of brokers' commission rates; the launch of an automated trading system; the

reduction of stamp duty on share transactions; the transfer of supervisory responsibility for Australia's financial markets to the Australian Securities and Investment Commission; and the revision of the stock-market conduct and integrity rules. The market responded largely positively to these reforms, leading to the development of the stock market over the years. Although the Australian stock market has developed over the years, as evidenced by the increasing number of listed companies, stock-market capitalisation, the total value and turnover ratio of stocks traded, it still faces some challenges.

These challenges include the increased economic uncertainty overseas, the downtrend in global financial markets, and the restrained consumer confidence in Australia. The regulatory and operational challenges emanating from the transfer of supervision to the Australian Securities and Investment Commission, a new disclosure regime for short selling and securities lending, and a new set of market integrity rules have also posed challenges to the Australian stock market.

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