PRACE NAUKOWE UNIWERSYTETU EKONOMICZNEGO WE WROCŁAWIU
RESEARCH PAPERS OF WROCŁAW UNIVERSITY OF ECONOMICS nr 486 • 2017

The Development Challenges of Asia-Pacific Countries ISSN 1899-3192
e-ISSN 2392-0041

**Magdalena Broszkiewicz**
Wrocław Uniwersity of Economics
e-mail: m.broszkiewicz.ue@gmail.com

# SUDDEN STOPS IN PORTFOLIO INVESTMENT FLOWS TO EAST ASIA AND PACIFIC REGION. AN EVIDENCE FROM INDONESIA AND SINGAPORE

# ZJAWISKO NAGŁEGO ZATRZYMANIA NAPŁYWU KAPITAŁU PORTFELOWEGO DO KRAJÓW AZJI WSCHODNIEJ I PACYFIKU NA PRZYKŁADZIE INDONEZJI I SINGAPURU

DOI: 10.15611/pn.2017.486.17
JEL Classification: F21, G15

**Summary:** The main aim of the article is to conduct the analysis of the different levels of development of Indonesia and Singapore capital markets between 1995 and 2015 and show that in both cases a sudden stop occurs, especially in the period of regional and global financial crises. However, it is possible to see a faster return to stabilization in the developed market, and therefore better opportunities for attracting foreign capital. International capital flows in this article shall be construed as a shift of capital across national borders, recorded in the account balance of payments.

**Keywords:** Portfolio investment, sudden stops of international capital flows, capital markets, East Asia and Pacific.

**Streszczenie:** Głównym celem artykułu jest przeprowadzenie analizy powiązań pomiędzy różnym poziomem rozwoju rynków kapitałowych Indonezji i Singapuru w latach 1995–2015 a zjawiskiem *sudden stop*, które występuje w obu przypadkach, szczególnie w okresie regionalnych i globalnych kryzysów finansowych. Jednak zauważyć można szybsze możliwości powrotu do stabilizacji na rynku lepiej rozwiniętym, a zatem większe jego możliwości przyciągania kapitału zagranicznego. Międzynarodowe przepływy kapitału w tym artykule będą interpretowane jako przesunięcie kapitału za granicę, zapisane w bilansie płatniczym.

**Słowa kluczowe:** inwestycje portfelowe, nagłe zatrzymanie napływu kapitału, rynki kapitałowe, region Azji Wschodniej i Pacyfiku.

## 1. Introduction

Efficient allocation of capital on an international scale results in the improved growth and stability in economies. With the increasing involvement of developing capital markets in the global economy, ever wider distribution of risk is possible. In addition, as the globalization processes enforced the creation of modern institutions and methods of management of the markets and public companies, the result was the increase in economic efficiency of regions and markets. It is a feedback mechanism in the economy, which helps create maturity in terms of quality of the capital market attractive for investors.

The main reason to undertake the topic indicated in the title of the article is the desire to show the dependence that exists between the level of development of capital markets and their maturity and confidence which raise the market among domestic and foreign investors. Asia Pacific region is in this respect important field of research, because, firstly, is an area of strong interest of foreign investors in the capital, and secondly, the level of development of individual economies and their capital markets significantly differ from each other. Also, the phenomenon of sudden stop of capital inflows, which can be observed in the history of the development of capital markets of the countries in the region, draws attention to the consequences of the financial crisis for the whole economy.

The article consists of two main parts. The first one is based on the literature review in the field of theory and empirical research of portfolio investment and sudden stops of capital flows. In this part the attempt was made to formulate hypotheses concerning the phenomena described for the Asia-Pacific region. Second part of the article is based on the analysis of empirical data describing the size and maturity of capital markets in the specified geographical area. It includes the discusson on the results of research.

## 2. Capital flows and sudden stops – hypotheses on the basis of the review of theory and empirical research

The literature emphasizes the role of the capital market in the mobilization and redistribution of capital which may be allocated for investments after satisfying consumer needs and domestic demand. Capital flows internationally stimulate economic growth and counteract the short-term economic difficulties of particular countries. Market supplied with the foreign capital meets the consequences of this movement in developing the cash at the disposal. It can be spent rather for the needs of investment or consumption than the national contributions. At the same time, capital market reduces the level of savings in the country of origin of capital, it can therefore be considered as a factor in the release rate of economic growth [Kawai, Lamberte 2010, pp. 35–38].

The causes of movement of capital in the international dimension are sometimes identical to those that determine such flows within a given market (the game of demand and supply of money), they are also the reason for the exclusive international movements. Because of the degree of political stability and the ability to achieve a higher rate of return, some markets may seem more attractive than others. The reasons for speculations are the differences in interest rates on the money and capital markets, and improvement of the structure of capital investments [Reilly, Brown 2008, p. 355].

International capital markets were created by the elimination of restrictions on capital transactions with foreign countries. The rules relating to capital account liberalization have been developed by the OECD in 1961 [Helmut 2000, p. 140]. In practice, the rate of elimination of these restrictions varied in the reviewed countries quickly following the highly industrialized countries (already in 1973 relatively liberal financial system existed in Germany, Singapore and Hong Kong). New financial markets of developing countries were opened in the 70s and 80s. Diversified was also the order of appearance of deregulation concerning the movements of long- or short-term capital flows [Ricardo, Helmut 1998, p. 75].

The problem of sudden capital outflows relates in particular to emerging markets, mainly because of their organizational instability and immaturity of economies, and thus the inability to retain capital in the long term [Rangarajan 2000]. Especially in the situation of global financial crises (the 90s of the 20th century in Southeast Asia, 2007–2008) the following mechanism is shown: reduction of the inflow of foreign capital in the situation of deepening instability in the whole economy (such declines are recorded especially in the economies of emerging countries), and even complete disappearance of foreign investment (especially portfolio), which causes the need to pay the creditor countries for participation loans. The outstanding "current account deficit, previously financed with foreign capital inflows, has to be eliminated or be financed with international reserve losses" [Da Silva 2015, p. 2].

The phenomenon of a sudden stop of capital inflows is recognized in the literature as a sudden slowdown in private capital inflows to emerging markets, highlighting the reversal of the trend of having current account deficits to surpluses of those turnovers (higher own investments abroad). This phenomenon is usually a consequence of "sharp decrease in output, private spending and credit to the private sector, and real exchange rate appreciation" [Calvo 1998, p. 40]. The elimination of harmful consequences of the instability of the financial markets and its low liquidity, a decline of confidence in the institutions of equity and debt market, and consequently the lack of allocative efficiency of the economy are necessary, because these factors are delaying economic and social development of countries affected by this phenomenon [Neagu, Mihai 2013, pp. 3–5].

It should be noted here that at the time of defining the phenomenon of sudden stop only developing countries are mentioned as those that will experience the greatest negative impact in this respect. There remains the question if the developed countries, the prosperous financial markets do not experience this kind of phenomena? In such a case is it possible to develop a growth path and protect themselves from this kind of negative phenomena? The analysis of the cases of Indonesia and Singapore, as the financial markets of varying levels of development in the countries of Southeast Asia, may be the beginning of the discussion on this topic.

The inflow of portfolio investment into the region is subject to fluctuations analogous to those on global financial markets, however, this area attracts capital from foreign markets in the form of short-term investments to achieve superior returns. The main research question of this article is related to the direction of portfolio investment flows in relation to the level of development of the financial market – is it logically related?

Taking into account the above described literature review two hypotheses were formulated.

H1: The area of Asia-Pacific Region was and still is an area of interest for investors in the international capital markets in the form of portfolio investment.

H2: The phenomenon of sudden stop inflow of portfolio investment can occur on any market, despite the level of development.

The study was based on the data from Indonesia and Singapore. These two countries differ in the level of development of capital markets, and the analysis concerns the period 1995–2015, especially the period of regional and global currency crises. Based on the verified statistical material, an attempt was made to conclude that a sudden stop could occur on any market, with better or less developed financial infrastructure. It occurred in Indonesia with its inadequate level of development of the capital market (to stop the capital inflow in the form of long-term investments). But the phenomenon of sudden stop also is also related to such a financial centre as Singapore (high degree of its association with the markets where the financial crisis has been triggered may result in stronger negative consequences, despite the high level of financial market development).

In this article international capital flows shall be construed as a shift of capital across national borders, recorded in the account balance of payments (as described in the sixth edition of the IMF's *Balance of Payments* and *International Investment Position Manual*). Inflows are recorded with an increase in liabilities due to foreign investment, and when these obligations are reduced or take advantage of assets in this respect, we are faced with a reduction in the size of capital inflows and investment growth of the country abroad. Net inflow is the sum of the inflow and outflow of capital (with a negative sign) These investments, understood as the portfolio, include securities transactions without the motive of taking control over the entity-issuer. It can be either of investments in debt securities and equity, private and public issuers [IMF 2013; Bluedorn et al. 2011, p. 125].

## 3. Verification of hypotheses based on empirical research

### 3.1. The inflow of portfolio investment to Asia-Pacific region since 1995

The net inflows on equity market in the period 1995–2015 (see Fig. 1) was presented in order to investigate the volume of capital inflows to East Asia and Pacific markets. As shown graphically, the sharp stoppage of capital inflows, and therefore the periodic minimum for interest of foreign investors in equity securities listed in the region, can be observed between 1997 and 1998, in 2002, 2008, 2011 and 2015.

The reasons for these behaviours are varied, so it is worth a closer look. However, it is also important to note the periods of strong Asian market dominance in attracting portfolio investment and their surplus in the region's balance of payments (in years: 1999, 2005, 2010, 2013). This demonstrates the high growth potential of the region's capital markets, but also the threat of speculative transactions in the global financial markets.

In 1997, the initial troubles in the banking industry of Thailand and Indonesia turned into a "domino effect" and gradually expanded its reach throughout the South East Asia region. The steps aimed at liberalizing financial flows (modelled on Japan) were not appropriate for the weak systems of those countries where the risks were not adequately assessed. As a result of the increase in demand, different measures were taken to attract short-term capital from the global financial markets, plus constant dollar-based fixed exchange rates. As a result, in 1994–1996, the region attracted about 60% of all short-term capital inflows to developing countries, which intensified banks' lending [The World Bank 1998, p. 37]. The lack of appropriate prudential regulation has led to the involvement of funds in risky investments by banks. This in turn caused the loans were not repaid, until foreign investors also began to withdraw their funds, seeing the weakness of the system. There was also a wave of speculation in the currencies of the region, which resulted in significant falls in exchange rates and an increase in the cost of servicing foreign loans.

The crisis ended with the recovery of economic stability in the economies of South East Asia. This has been achieved through the help of international financial institutions (Asian Development Bank, World Bank, International Monetary Fund). Their delivery was subject to reforms in the macroeconomic, banking and capital markets sectors [IMF 2015, p. 6].

Although the crisis at the end of the 20th century has negatively impacted the economies of Asian countries, the decline in portfolio inflows during the period under review was not as significant as in the later period, especially during the 2007–2008 financial crisis. In the period between the two major financial markets crises, the phases of the decline and increase in portfolio inflows to East Asia and the Pacific have been observed, with the tendency observed in the global financial markets (the total inflow of net global portfolio investors) as shown in Fig. 1.

The year 2008, both for the world financial markets and the East Asia and Pacific region, was marked by the largest, ever-shrinking volume of net portfolio investment. However, due to the ever stronger connection between the markets and the ability to make investment decisions in a very short time on many markets at the same time, the symptoms of the crisis have also spread to other markets. New financial instruments that support speculation on world exchanges, also present in the more advanced Asian markets, have previously helped to attract capital to developing economies in the region. However, with the withdrawal of "hot capital" from stock exchanges, downturns have also experienced a listing in the Asia-Pacific region.

Even the most stable market in the region, in Japan, suffered from the impact of the crisis: the Tokyo Stock Exchange dropped the Nikkei 225, which fell more than 40% in the fourth quarter of 2008 [*Japan's ailing*… 2008]. Compared to the first

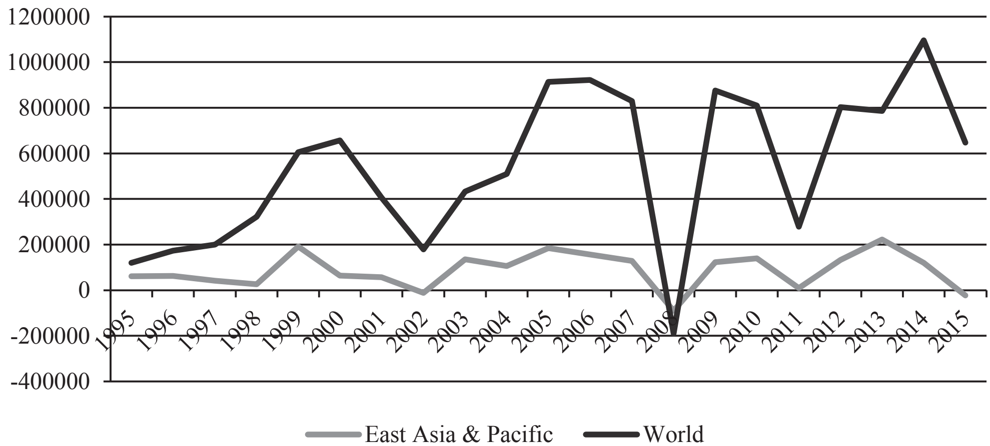


**Fig. 1.** Portfolio equity, net inflows in the East Asia & Pacific and on world markets, 1995–2015, in milion current US dollars

Source: own study based on [The World Bank 2017].

quarter of 2008, regional financial centres, Hong Kong and Singapore, also experienced significant declines, which translated into their GDP, significantly lower in 2008 than in previous periods (in Singapore, GDP growth in 2008 was six times lower from planned and amounted to 1%; this is the slowest pace of development since the decade) [Adam 2008].

The Asia-Pacific region, particularly emerging countries (China, India, Indonesia, Malaysia, Philippines, South Korea, Thailand) stand out against the world financial markets with the following factors which will attract portfolio capital in the coming years:

- increasing capitalization and higher return on investment in the stock markets of developing countries than in most markets in developed countries,
- introduction of shares of companies from developing countries to international stock exchange through the first public offering (cross-border initial public offering),
- the growing value of debt securities, especially corporate bonds,
- diversification of investment portfolios of international investors,
- institutional such as pension funds and insurance companiesfrom developed countries,
- acquisition of foreign debt securities by entities of developing economies, especially from Asia.

As shown in Fig. 2, the turnover ratio of domestic shares for East Asia and the Pacific is following world trends.

By 2013, the rate of return on investment in the region was worse than the world average, but in the last 3-4 years it is significantly higher. This demonstrates the new

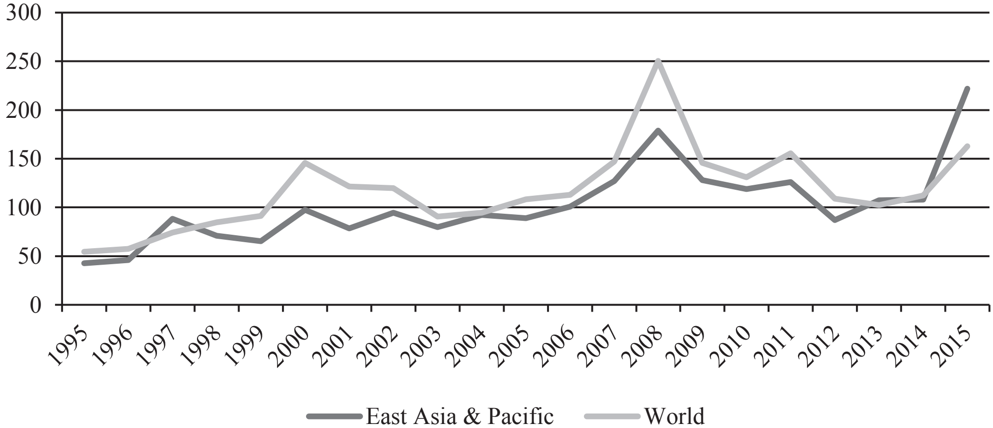


**Fig. 2.** Stocks traded, turnover ratio of domestic shares (%) in East Asia&Pacific and world in period 1995–2015

Source: own study based on [The World Bank 2017].

possibilities of attracting capital and raising the interest of foreign investors mainly for profit. Is it possible to retain capital for a longer period of time thanks to the development of capital markets of individual countries and regions? Further analysis of the problem of sudden stops of capital flows indicates the conditions favourable to capital attraction.

### 3.2. The inflow of portfolio investment to Indonesia and Singapore – a sudden stop phenomenon on emerging and mature financial market

The following considerations dealt with the possibility of a sudden stop-and-go movement of capital on a capital market in a developing country – Indonesia compared to Singapore's mature capital market, which is one of the world's financial centres. Both countries are located in the East Asia and Pacific region, potentially contributing to the inflow of portfolio investment into the investment-attractive markets.

Indonesia is one of the strongest emerging markets in the world. Indonesia abounds in natural resources – it is the world's largest producer of energy coal, tin and nickel. As a place to invest capital it is still regarded as quite exotic, attracting investors looking for opportunities in emerging markets for years. Stable and positive economic growth supports both equity and debt equity markets. Over the past decade, the Jakarta Composite Index's primary index has grown by nearly 300%. Looking at the post-crisis pitfall recorded in the last months of 2008, the stock market capitalization is currently five times higher. As regards the debt market, the share of foreign investors has increased three times in Indonesia (in November 2016 it fluctuated around 35–40%), especially due to profitability which stood at 7.5%. Stabilization in the oil market and loose monetary policy give prospects for high economic activity of entities and high economic growth (about 5% according to forecasts for 2017) [Bursa Efek Indonesia 2010].

After the crisis in 1997, most private companies went under state control to guarantee stability. This was not conducive to the search for new sources of capital, for example with the help of the capital market [Rosul 2002, p. 18]. Support for Indonesia in the development of the capital market was also provided by Asian Development Bank ($ 300 million loan in 2009 for the implementation of the national capital market reform program). A significant strengthening of the Indonesian capital market was made in 2007, when the Jakarta Stock Exchange (JSX) and the Surabaya Stock Exchange (SSX) merged into an Indonesian Stock Exchange (Bursa Efek Indonesia) [Bursa Efek Indonesia 2010]. The capital market of Indonesia is based on the principles of shari'a, consistent with the religion of most of its population. For institutional reasons – insufficient regulatory and legal framework, Indonesia is quite vulnerable to sudden capital transfer [Astuty 2015, p. 53].

Singapore is a highly developed country where the economy is based on trade and services. Clear procedures, lack of customs (except cars, alcohol and tobacco) and non-tariff trade barriers have become regional shopping malls where foreign goods are sent to other Asian markets, particularly to South East Asia. Stable political climate, attractive investment climate and very well-developed infrastructure mean that Singapore plays a key role for business, not only as a target market, but also as a gateway for business and investment expansion into other Asian markets. Economic forecasts for the years 2017–2020 forecast economic growth at 1–3% per year. Singapore's primary stock exchange is Singapore Exchange (SGX). It was established on December 1, 1999 as a result of the merger of the Stock Exchange of Singapore and the Singapore International Monetary Exchange. The most important listed stock index in Singapore is based on the rates of 50 companies Straits Times Index. The Stock Exchange is a member of the AOSEF (Asian and Oceanian Stock Exchanges Federation)

The domestic market capitalization for Indonesia in 2016 was 425 767,8 USD, while for Singapore it was 640 427,5 USD. The numer if listed companies was: 537 for Indonesia and 737 for Singapore. The value of share trading in electronic order book was: 92 053,1 USD for Indonesia and 196 932,7 USD for Singapore [World Federation of Exchanges 2016]. In Global Financial Centres Index in 2017 (a ranking of the competitiveness of financial centres) Indonesia is on 67$^{th}$ position, while Singapore is one of the leaders –on third position [CDI, Z/Yen 2017].

Considering the market capitalization of listed domestic companies in Indonesia and Singapore over the period considered (see Fig. 3), one can see the strength of the capital market of the other country. Since 2012, the market value of listed companies in Indonesia has been more than double that of Singapore, which may reflect the attractiveness of investment and the competitiveness of companies from the country, considered one of the most important financial centres in the world. In earlier years, this relationship looked similar, with Singapore's biggest advantage in 2007. At the same time, it is worth noting that the decline in market capitalization during the financial crisis in 2008 was greater in Singapore (from USD 539 176.63 million in 2007 to USD 26,494.4 million in 2008) than in Indonesia (USD 211 692.97 million equivalent In 2007 to $ 98 760.6 million in 2008). The more developed market became more vulnerable to outflows, also due to stronger links with the markets of the countries that triggered the crisis signals.

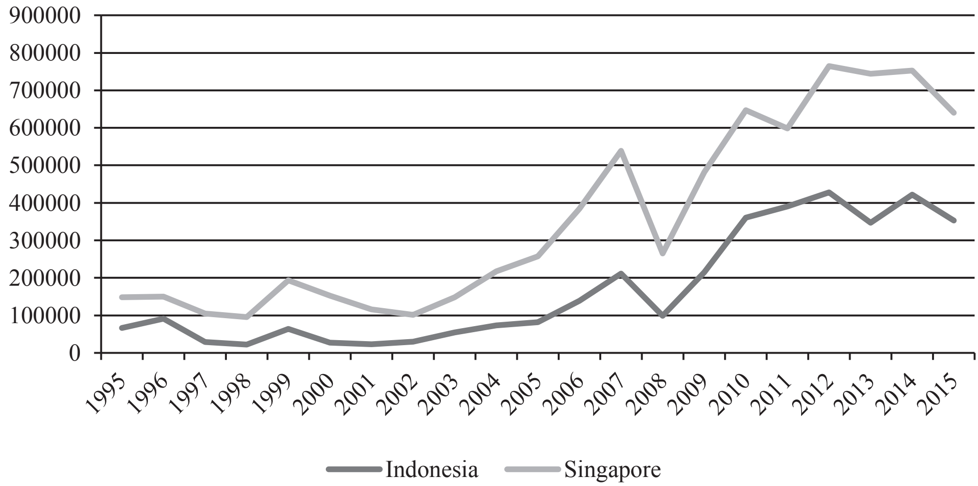


**Fig. 3.** Market capitalization of listed domestic companies (in million current USD) in Indonesia and Singapore, period: 1995–2015

Source: own study based on: [World Federation of Exchanges database].

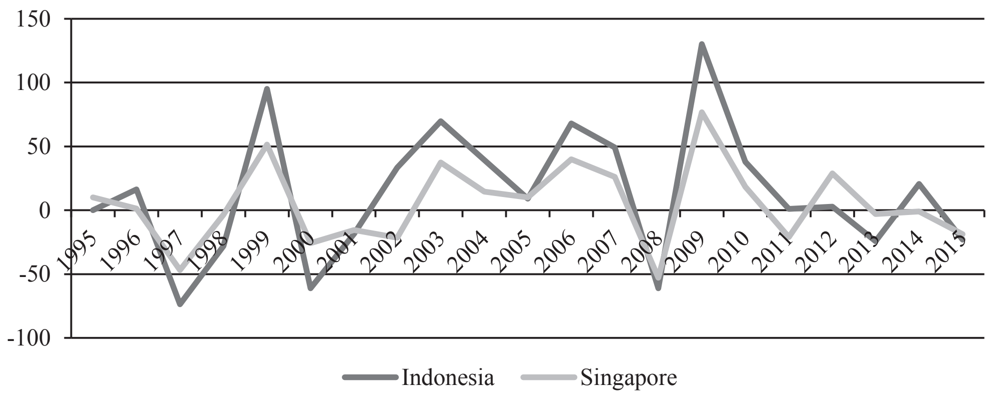


**Fig. 4.** S&P Global Equity Indices (annual % change) for Indonesia and Singapore

Source: own study based on: [Standard & Poor's 2015].

The S&P Global Equity Index (see Fig. 4) contains the most liquid and investable stocks in emerging, frontier and developed markets. It can be used as great benchmarks to compare stock performance between emerging and developed countries. As we can see on Fig. 5 below, the capital market of Indonesia is still less predictable as the percentage change in the index is a sign of major changes in the value of securities prices. This is a factor that can attract investors who are looking for a profit in the short term or who are profiting from a decline in prices using derivatives. Singapore's capital market offers comparable returns, but with less volatility in price.

To answer the fundamental question posed in this article, whether the phenomenon of sudden capital inflow only affects developing markets, insufficient architecture for long-term retention, or also high-growth capital markets, the net inflows of equity portfolio to Indonesia and Singapore in 1995–2015 were compared. The net inflows of equity portfolio to Indonesia and Singapore in 1995–2015. In addition, inflows to both countries were compiled with the inflow of equity portfolios to East Asia & Pacific (see Figs 5 and 6).

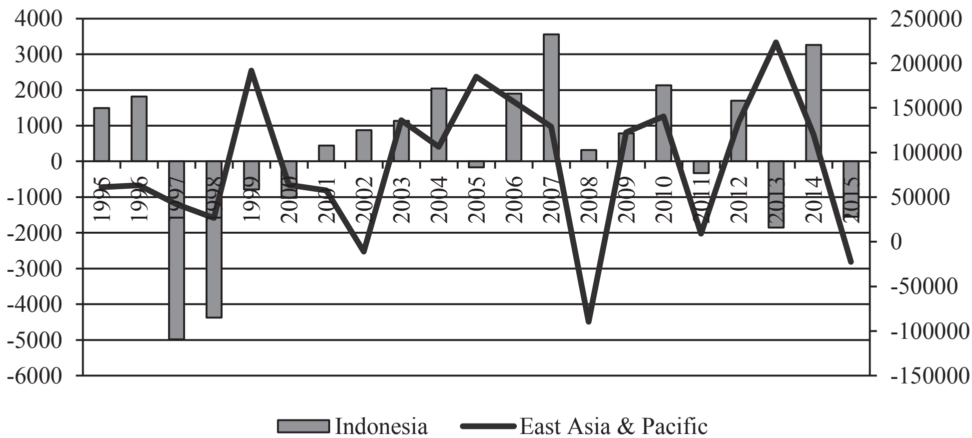


**Fig. 5.** Portfolio equity, net inflows to Indonesia in comparison with whole East Asia & Pacific region, 1995–2015, in milion current US dollars

Source: own study based on [The World Bank 2017].

By analyzing the inflow of equity investment portfolio to Indonesia we can see that the sudden stop of capital inflow occurred in this country during the Asian crisis – a strong inflow to 1996 was suddenly reversed and was strongly negative in the next two years, resulting in the destabilization of the economy. The reversal of the trend of capital inflows may also be seen in 2012–2013 and 2014–2015, but already with short-term effects associated with the outflow of hot capital in search of more profitable investments. It is also worth noting that in 2008, when the financial crisis

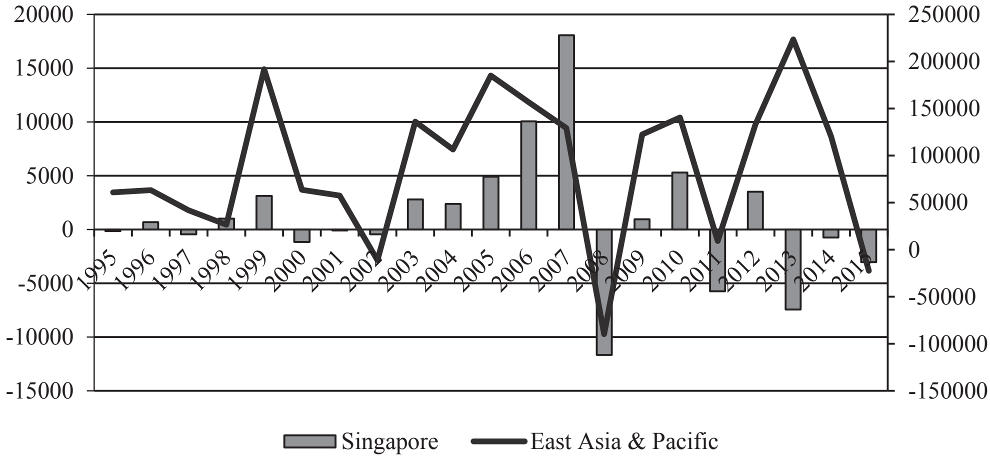


**Fig. 6.** Portfolio equity, net inflows to Singapore Indonesia in comparison with whole East Asia & Pacific Region, 1995–2015, in milion current US dollars

Source: own study based on [The World Bank 2017].

hit the region's markets very hard and caused capital outflows, a positive capital inflow was seen in Indonesia in the form of portfolio investments in equity.

From Fig. 6 it can be seen that the phenomenon of sudden stopping of capital inflows also applies to developed markets. Owing to the strong financial ties of Singapore's financial centre with capital from North America and Western Europe, a sudden stop-and-go phenomenon has also occurred in this market in 2007–2008. However, after this period the situation stabilized and the outflow of portfolio investments in subsequent years resulted from looking for investment opportunities rather than from market troubles with stability.

From the foregoing considerations it can be concluded that developed capital markets are also experiencing a sudden stop of capital inflow, but as was shown in the case of Singapore, they are able to reverse the unfavourable market trend more quickly.

## 4. Conclusions

The course of the financial crisis in South East Asia is questioning the legitimacy of allowing foreign capital to enter the domestic capital market. It is a capital that moves quickly between markets, and its movements are driven by decisions made by emotions rather than rational judgments. The first is also "running away" in the face of the threat to the financial markets. The problem, however, is not the influx of foreign capital, but the creation of a stable infrastructure in the country for transaction and security of trade. In such a situation, the flow of capital, and therefore foreign standards, can contribute to the development of a country's capital market.

As shown in the above considerations, the East Asia Pacific market is attractive from the point of view of intra-equities in developing economies and capital-strengthening markets. However, the emergence of a sudden stop of capital flow may affect both the developing economies (Indonesia) and the financial centres of the region (Singapore). However, the reasons for this phenomenon are different, which also gives a certain direction for efforts in developing capital markets of both countries and the whole region.

## References


Adam S., 2008, *Singapore in recession*, Bloomberg, http://www.bloomberg.com/apps/news?pid=20601087&sid=aCfJDzdRR1ls&refer=home (3.04.2017).

Astuty W., 2015, *The extraordinary solution for Indonesia economic crisis: Shariah capital market*, Journal of Finance and Bank Management, vol. 3, no. 2, pp. 27–29.

Bluedorn J., Duttagupta R., Guajardo J., Topalova P., 2011, *International capital flows: Reliable or fickle*, [in:] *World Economic Outlook: Tensions from the Two-Speed Recovery*, IMF, https://www.imf.org/~/media/Websites/IMF/.../_c4pdf.ashx (7.04.2017).

Bursa Efek Indonesia, 2010, *History*, http://www.idx.co.id/en-us/home/aboutus/history.aspx (7.04.2017).

Calvo G.A.,1998, *Capital flows and capital market crises: The simple economics of sudden stops*, Journal of Applied Economics, vol. 1, no. 1, p. 35–54.

CDI, Z/Yen 2017, *The Global Financial Centres Index 21*, http://www.longfinance.net/images/gfci/gfci_21.pdf (7.04.2017).

Da Silva L.A.P., 2015, *Sudden floods and sudden stops of capital flows in an environment of ultra-low interest rates: An equal opportunity menace for emerging market and advanced economies alike*, Remarks at 51st SEACEN Governors' High-Level Seminar, Manila, November 26.

Helmut R., 2000, *Pensions, Savings and Capital Flows from Ageing to Emerging Markets: From Ageing to Emerging Markets*, OECD Publishing.

IMF, 2013, *Sixth Edition of the IMF's Balance of Payments and International Investment Position Manual (BPM6)*, https://www.imf.org/external/pubs/ft/bop/2007/bopman6.htm (20.03.2017).

IMF, 2015, *Rethinking Financial Deepening: Stability and Growth in Emerging Markets*, IMF Discussion Note, May, SDN/15/08.

*Japan's ailing economy set for further woes*, 2008, Financial Times, www.ft.com/cms/s/0/0f505170-b4d7-11dd-b780-0000779fd18c,dwp_uuid=518cc03a-2285-11dd-93a9-000077b07658.html (2.04.2017).

Kawai M., Lamberte M.B., 2010, *Managing Capital Flows: The Search for a Framework*, Edward Elgar Publishing, Cheltenham, UK, Northampton, MA.

Neagu F., Mihai I., 2013, *Sudden stop of capital flows and the consequences for the banking sector and the real economy*, Macroprudential Research Network, Working Paper Series no. 1591/September.

Rangarajan C., 2000, *Capital flows: Another look*, Economic & Political Weekly, vol. 35, no. 50, December 9.

Reilly F.K., Brown K.C., 2008, *Investment Analysis and Portfolio Management*, South-Western Cengage Learning, Mason, OH.

Ricardo F.-D., Helmut R., 1998, *Development Centre Studies Capital Flows and Investment Performance Lessons from Latin America: Lessons from Latin America*, OECD Publishing.

Rosul M., 2002, *The capital market in Indonesia's economy. Development and prospects*, Center for Policy and Implementation Studies, AT10 Research Conference.

Standard & Poor's, 2015, *Global Stock Markets Factbook*, http://www.spindices.com/documents/additional-material/2015-sp-global-stock-markets-factbook.pdf (27.03.2017).

The World Bank, 1998, *East Asia: The Road to Recovery*, Washington, DC, http://documents.worldbank.org/curated/en/364021468770639382/pdf/multi-page.pdf (30.03.2017).

The World Bank, 2017, *World Development Indicators*, http://data.worldbank.org/data-catalog/world-development-indicators (25.03.2017).

World Federation of Exchanges, 2016, *WFE Annual Statistics Guide*, https://www.world-exchanges.org/home/index.php/statistics/annual-statistics (7.04.2017).

World Federation of Exchanges database, https://www.world-exchanges.org/home/index.php/statistics (28.03.2017).