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## **The role of institutional investors, banks and hedge funds in the development of the global financial market<sup>1</sup>**

### 1. Introduction

Globalisation of financial markets is the result of foreign exchange liberalisation and technological progress. Foreign exchange liberalisation opened domestic markets for foreign investors. Technological progress enabled rapid reduction in cost of concluding and settling transactions. Geographical distance lost its significance<sup>2</sup>. Rapid decrease in the cost of access to information and data processing has created the situation in which foreign investors have the same information as local investors.

The idea, which has shaped the contemporary globalisation, was Harry Markowitz theory of portfolio diversification, which had completely changed the way of investing<sup>3</sup>. When foreign exchange liberalisation had opened foreign markets to investors, the purchase of foreign securities became one of the methods of portfolio diversification.

Globalisation has dramatically changed financial markets. The emergence of a large number of liquid financial markets is its most spectacular consequence. Until quite recently textbooks on financial markets told us that even in the United States, a country where markets played a major role in financial intermediation, high liquidity was characteristic only for foreign exchange markets, equity markets and treasury bond

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<sup>2</sup> K. Rybiński, "Globalisation and Financial Markets", [www.nbp.pl/publikacje/wyklady/rybinski-200406.pdf](http://www.nbp.pl/publikacje/wyklady/rybinski-200406.pdf)

<sup>3</sup> H. Markowitz, "Portfolio Selection", *Journal of Finance*, March 1952, p. 77-91.

market, whereas liquidity of other markets was relatively low<sup>4</sup>. Since the last decade of the previous century the number of liquid financial markets has been growing rapidly.

Having in mind that every liquid financial market offers a particular instrument used in financial management, we may conclude that financial market globalisation has led to the emergence of a global “supermarket” offering a growing number of instruments which may be easily used for liquidity management, investing and risk management. Globalisation enhances liquidity of financial markets as the emergence of foreign investors enlarges the volume of trade and thus improves liquidity of domestic financial markets.

There is a favourable feedback between globalisation and financial markets liquidity. Liquid markets are relatively safe, which attracts, in turn, more investors. A liquid market is relatively safe, because individual transactions are too small to influence significantly prices. Therefore, investors may withdraw from a given market without incurring losses, which might otherwise result from a fall in prices. Globalisation improves not only the liquidity of the already existing financial markets. It encourages also the emergence of new financial markets, which is particularly spectacular in case of derivative markets. The improved liquidity of the spot markets has enabled the emergence of derivatives markets. The emergence of liquid vanilla derivative markets enabled the emergence of liquid markets of complex derivative instruments. The recent spectacular growth of credit derivatives market serves as an example<sup>5</sup>.

One of the greatest advantages of financial market globalisation during the time of the gold standard system (1870-1914) was that economic growth of many countries was financed by savings of surplus countries. Therefore, it seemed rather puzzling why in the first stage of the contemporary globalisation the share of foreign savings in financing of the domestic investment was relatively small<sup>6</sup>. The more recent studies showed, however, that the situation in this respect has been changing rapidly. The share of foreign savings in financing domestic investment has been growing rapidly. This suggests that the

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<sup>4</sup> J. Madura, *Financial Markets and Institutions*, West Publishing Company, Saint Paul 1989, p. 7

<sup>5</sup> “The Influence of Credit Derivative and Structured Credit Markets on Financial Stability”, *Global Financial Stability Report*, Chapter II, IMF, April 2006, p. 52

<sup>6</sup> M. Obstfeld, K. Rogoff, “The Six Major Puzzles in International Macroeconomics: Is There a Common Cause?”, *NBER Working Paper 7777*, 2000

contemporary globalisation will have equally favourable impact on the development of the world economy<sup>7</sup>.

Yet, this paper does not focus on long-term capital flows, but on financial markets alone. It discusses the role of various types of financial institutions in the development of the global financial market. Section 2 presents the influence of institutional investors on the development of local capital markets. Section 3 discusses the role played by banks in the development of derivative markets. Section 4 examines the impact, which is exerted on markets by the mushrooming hedge funds. Section 4 point out that insufficient development of the financial sector on the global scale contributed to the rapid growth in foreign exchange reserves of several central banks. Section 6 offers concluding remarks.

The issues of financial markets liquidity address rather technical questions. Thus it does not attract often economists' attention. However, the functioning of financial markets exerts important albeit indirect impact on economic situation in different countries.

The emergence of a global system of liquid and highly diversified financial markets is a new phenomenon. The contemporary global financial market offers a wide array of instruments for investing and hedging purposes. We still witness a revolution in risk management. It is not just about growing of hedging possibilities. The gist of the revolution is risk management is that financial institutions are able to adjust the amount of risk (potential losses) they take to the volume of capital they have. This enabled them to take exactly the risk they can afford. All this reduces the probability of a recurrence of massive bankruptcies of financial institutions, which took place during the Great Depression in 1929-1933, or during the series of currency crises in Asia in 1997-98.

## **2. Institutional investors**

The term *institutional investors* refers to financial institutions engaged in long-term investing. It comprises mainly insurance companies, investment funds and pension funds.

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<sup>7</sup> M. Feldstein, "Monetary Policy in a Changing International Environment: The Role of Capital Flows, NBER *Working Paper*, 2005

One of the aspects of globalisation is that financial investors contribute to the development of local capital markets.

The American capital market is the largest in the world. Therefore, the changes, which shaped later the globalisation of equity markets, took place initially in the United States. The period when Harry Markowitz's portfolio theory started to be generally accepted was the Seventies. It was after William Sharpe showed that the optimal portfolio is simply a *market* portfolio<sup>8</sup>. Since that time market portfolios have become commonly used benchmarks by institutional investors. At the beginning, American financial institutions did not buy foreign equities. However, with the passage of time it had become one of the methods of portfolio diversification. Empirical studies have shown that the inclusion of 10% of foreign equities in the American equities portfolio increased the expected rate of return from 12% to 13.6%, and reduced volatility of the rate of return from 18.3% to 17.5%<sup>9</sup>.

As mentioned above, globalisation exerted a favourable impact on the development of financial markets by boosting their liquidity, which relates also to the local capital markets. However, globalisation has brought another benefit in case of equity markets. It has become a factor, which strengthened corporate governance in various countries.

Corporate governance is a system of legal standards and principles of conduct, which enables shareholders to exercise an effective control over the stock company management<sup>10</sup>. In order to ensure effective corporate governance, the stock companies have to comply with information standards. They have to publish such a set of information, which enables shareholders to make an objective assessment of the standing of a particular company. The effectiveness of the corporate governance requires also safeguarding the rights of minority shareholders.

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<sup>8</sup> W. F. Sharpe, "Capital Asset Prices: A Theory of Market Equilibrium Under Conditions of Risk", *Journal of Finance*, no. 3, 1964, p. 425-442.

<sup>9</sup> G. R. Dobson, *The Global Investor, Opportunities, Risks and Realities for Investors in the World Market*, Probus Publishing Company, Cambridge, 1995, p. 43

<sup>10</sup> *Raport dotyczący przestrzegania norm i kodeksów: Ocena nadzoru korporacyjnego w Polsce*, Bank Światowy, Czerwiec 2005 [*Report on the Compliance with Codes and Standards: Assessment of the Corporate Supervision in Poland*, The World Bank, June 2005]

Globalisation of financial markets is a factor that strengthens corporate governance in countries, which want to attract foreign capital to their stock exchange markets. Foreign investors must have an access to full and reliable information on the issuers of securities. They also have to be provided with an adequate legal protection. This means that a country wanting to attract foreign capital should observe not only international standards of accounting and financial reporting but also regulations protecting the rights of minority shareholders. Investors want a guarantee that they will be able to claim their rights effectively. The quality of corporate governance is one of the main factors taken into account by investors while taking their decisions to buy foreign securities<sup>11</sup>.

The strengthening of the corporate governance contributes to the quality of the management, which, in turn, enhances productivity and indirectly economic growth<sup>12</sup>. The “pressure” exerted by foreign institutional investors enables emerging countries to implement similar institutional changes, which are being introduced in the developed countries. One of such changes is the imposition of much more severe, than until recently, sanctions on managing boards who publish information, which is misleading to investors<sup>13</sup>.

Yet, the experience of many countries, including Poland, shows that the inflow of foreign capital alone is not sufficient to provide liquidity to the stock market. Foreign capital inflow provides liquidity rather to the blue chip stocks than to the whole market. This is perfectly understandable as investors buy only liquid securities to have the possibility to sell them back at any time, without fearing to suffer losses as a result of price fall resulting from such a sale<sup>14</sup>.

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<sup>12</sup> M. A. Kose, E., Prasad, K., Rogoff, S., Wei, “Financial Globalization: A Reappraisal”, NBER, Working Paper, August 2006, [www.nber.org/papers/w12484](http://www.nber.org/papers/w12484)

<sup>13</sup> Z. Dube, K. E. Howell, “Assessing Corporate Governance and the London Stock Exchange: A Historical Analysis”. W: Kowalski, T., Letza, S., *Corporate Governance and Institutions: A Pan-European Perspective*, Publishing House of Poznań University of Economics, Poznań 2006.

<sup>14</sup> J. H. Edison, F. E. Warnock, „US Investors’ Emerging Market Equity Portfolios: A Security-Level Analysis”, IMF, January 2003, p. 24

The activity of foreign investors is the driving force behind the improvement of liquidity of equity market, although the experience of the Warsaw Stock Exchange is an example that purchases of large blocks of domestic shares by foreign investors may also limit the number of shares available on the market which, in turn, temporarily reduces the amount of the free float.

The increase in the number of liquid securities depends on the supply of shares of large enterprises, as their securities are the only ones, which have a chance to become genuinely liquid. In the case of Poland, it is the continuation of privatisation process, which might increase supply of shares issued by large companies. The other factor, which might improve liquidity of the stock market, is the listing of foreign companies at the Warsaw Stock Exchange. An important structural problem affecting the operation of the WSE is the fact that the supply of shares is not sufficient for the growing demand from the Open Pension Funds.

The problem of the stock market liquidity is important not only for institutional investors but also for small and medium sized firms and for venture capital. At present, new enterprises are established often in those branches where the human capital is of crucial importance. Such companies often do not have collateral to apply for bank loans. This risk of financing such enterprises might be taken by the stock exchange where the risk is highly dispersed.

The existence of a liquid stock exchange market is important not only for the companies which are at a such stage of their development that they are able to meet the requirements of public listing. The existence of a liquid stock exchange market is also important for new companies which are not yet capable of meeting those requirements and have the chance to raise capital only in the venture capital market. This is so because venture capital funds are ready to invest their capital in a particular country provided there is a possibility to withdraw from an investment by listing a given firm on the stock exchange.

### **3.Banks**

One of the financial markets whose development had been enhanced by globalisation was the corporate bond market. Large enterprises found it cheaper to borrow directly on the capital market, through issuing bonds. Lower interest rates on corporate bond market result from the fact that for banks extending traditional loans incur more risk purchasing bonds. Extending a loan involves a costly analysis of a given company. In case of a deterioration of the financial standing of a given firm it is difficult to sell the loan. In the case a bond it is easy to sell it on a secondary market.

Relatively low interest charged on commercial bonds (as compared to bank loans) result also from the fact that corporate bonds are being purchased by investment funds, which do not take risk themselves (as banks) but are passing it on their clients. This enables investment funds to accept relatively lower interest on bonds. The fact that large companies prefer to borrow directly on the bond market resulted also from their attempt to adopt "arm's length approach" towards banks <sup>15</sup>. As the corporate bond markets "robbed" commercial banks from their best customers, banks had to search for other sources of income. One of them was the intensified trading on financial markets due to their increased liquidity.

Traditionally, bank dealing rooms operated on interbank money markets enabling bank customers to manage their liquidity. Traditionally, they were offering also foreign exchange transactions and hedging against foreign exchange risk. Globalisation, which rapidly increased the number of liquid financial markets, has enabled dealing rooms to widen greatly the number of financial instruments they offer to their clients.

The Polish financial market may also serve as an example. In 1998 the opening of forward markets for foreign investors started a rapid growth of the domestic derivative markets, which increased the number of financial instruments offered by the domestic banks <sup>16</sup>.

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<sup>15</sup> R. G. Rajan, L. Zingales, "Banks and Markets: The Changing Character of European Finance". W: V. Gaspar, P. Hartman, O. Sleijpen (eds), *The Transformation of the European Financial System*, European Central Bank, Frankfurt 2003, p. 175

<sup>16</sup> A. Sławiński, "Rozwój rynków finansowych a stabilność systemu finansowego gospodarki", *Studia Ekonomiczne*, INE PAN, Warszawa 2003, no. 1-2, p. 67-80. [Development of Financial Markets and Stability of the Financial System in the Economy, *Studia Ekonomiczne*, INE PAN, Warsaw 2003, no. 1-2, p. 67-80]

Globalisation has enabled not only the emergence of liquid domestic derivative markets. It enabled also the access of the domestic banks to the derivative markets, of which liquidity is supported on the global market.

The example is interest rate swaps market, which offers hedging against long-term interest rate risk. The trading of large financial institutions in London, which is the centre of the global interbank market, supports liquidity of this market. The reason behind this is that in London there is sufficient number of large banks, which have capital enabling them to take risk related to trading in long-term IRS contracts. The high liquidity of the London IRS market enables the East European banks to have an easy access to the IRS contracts denominated in their domestic currencies.

Another example of a derivative market of which liquidity is supported by the global market is the credit derivatives market, which is operated mainly by the global investment banks.

#### **4. Hedge funds**

Hedge funds, whose number has increased from several hundred to 9 thousand during the last couple of years, are one of the driving forces behind the improved liquidity of global financial market<sup>17</sup>. Hedge funds are in fact a product of globalisation<sup>18</sup>. This is because the global financial market with its diversity of liquid markets is a natural environment for hedge funds enabling them to conclude reciprocal (arbitrage) transactions in many different markets. Only liquid markets provide possibilities for conducting short-term transactions without the risk of being trapped on a specific market.

The term “hedge funds” is misleading as it refers to institutions engaged in short-term speculative dealings<sup>19</sup>. The name is justified only as far as these institutions use arbitrage (reciprocal) transactions to hedge themselves from *market risk* stemming from

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<sup>17</sup> “Capitals of Capital”, *The Economist*, August 31<sup>st</sup> 2006

<sup>18</sup> J. Loeys, L. Fransolet, *Have Hedge Funds Eroded Market Opportunities?*, J.P.Morgan, London 2004, p. 5

<sup>19</sup> P. Krugman, *The Return of Depression Economics*, The Penguin Press, London 1999, p. 119

random price fluctuations on financial markets. At the same time, they take other types of risk and use leverage, which increases their potential losses in relation to their capitals<sup>20</sup>.

The term “arbitrage funds” might have been a more appropriate as in everyday language of financial market the word *arbitrage* is used to denote many different transactions aimed to exploit opportunities to achieve Alpha, i.e. the above average rate of return.

In the language of financial markets the „above average” rates of return are related to the returns from *market portfolios*. In the global market, the usual benchmark is the rate of return from passively managed portfolio replicating S&P500 index.

In order to achieve this, hedge funds often have to quest for Alfa outside the American equity market which is highly developed and so efficient that it is difficult to find price anomalies, which would provide above average rate of return. Informational efficiency of the developed equity and bond markets forces hedge funds to look for Alpha on the less liquid markets.

The less liquid markets offer not only a chance to spot price anomalies. They offer also a higher volatility of prices. Thanks to this hedge funds may exploit price trends. The example was the speculation on the Polish zloty appreciation in 2004 following Poland’s entry into the EU, which reduced the risk premium on the zloty market<sup>22</sup>.

The positive aspect of the hedge funds activity is that their speculative dealings provide liquidity to many financial markets, especially to derivative markets. This increases the number of financial instruments, which may be easily used by other financial institutions and corporate sector. Moreover, in their “quest for Alpha” hedge funds enter successive markets, which improves their liquidity. This attracts other financial institutions. With the passage of time, the growing informational effectiveness of a given market reduces the chances to find price anomalies. Thus, hedge funds are looking for other markets contributing to their development.

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<sup>20</sup> A. Sławiński, *Rynki finansowe*, PWE, Warszawa 2006, p. 93-98 [A. Sławiński, *Financial markets*, PWE, Warsaw, 2006, p. 93-98]

<sup>22</sup> K. Rybiński, *Outlook for Poland’s economic and financial situation*. Speech at the Annual Meeting of the Association of Chartered Certified Accountants (ACCA), Warsaw, 18 May 2006

Concerns about the hedge funds stem from the fact that they are still poorly supervised, which might lead to serious upheavals in the financial markets, as was the case with the LTCM. The point is that hedge funds are poorly supervised, but they do use risk-monitoring systems as other financial institutions. The LTCM used VaR (*Value at Risk*) to measure its potential losses. The “bad luck” of the LTCM was that it had to face the rare event of a liquidity crisis.

The recent case of the Amaranth hedge fund, which lost 6 billion dollars on gas futures, suggests that a bankruptcy of a large hedge fund does not trigger other bankruptcies due to improving risk management in the sector. Given the growing diversity of investment strategies adopted by the hedge funds, the systemic risk may decrease in the future<sup>26</sup>.

Hedge funds will be better supervised, when their institutional customer will force them to provide information on their activities. At present, almost 36% of assets are funds paid by institutional investors<sup>27</sup>. Consequently, initiatives are launched to establish systems of control over hedge funds activities<sup>28</sup>.

## 5. Central banks

The large trade surpluses forced a number of Asian central banks to play the role of institutional investors "recycling" their countries' export surpluses mainly to the American financial market. Especially the past few years have seen a rapid growth in foreign exchange reserves. China's foreign exchange reserves reached 1 trillion of US dollars. A rapid growth in foreign exchange reserves is a difficult problem for central banks as it entails large costs of sterilisation.

The necessity to play by Asian central banks the role of global institutional investors reflects the relative underdevelopment of capital markets in the region<sup>29</sup>. In the

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<sup>26</sup> W. Fung, “Hedge funds Alphas and Betas: What we have learned and what are the risk management implications?”, CEPR Roundtable, 6<sup>th</sup> June London, 2006

<sup>27</sup> S. Scholtes, “Market Insight: Hedge funds performance could disappoint”, *Financial Times*, 11 October 2006

<sup>28</sup> *Report of the Alternative Investment Expert Group to the European Commission: Managing, Servicing and Marketing Hedge Funds in Europe*, European Commission Internal Market and Services DG, July 2006

<sup>29</sup> Y. Kim, I. S. M. Ho, M. Giles, *Developing Institutional Investors In People's Republic of China*, The World Bank, September 2003

19th century when England had large trade surpluses, as today China, the Bank of England, unlike the Bank of China now, was not accumulating large foreign reserves. One of the factors that enabled such a situation was that London capital market was relatively well developed. Excess export earnings of British enterprises were invested directly in London investment banks, which used them to finance their foreign direct and portfolio investment. Asian enterprises do not have such possibilities due to insufficiently developed local capital markets. Therefore, Asian enterprises generally sell their export earnings to their domestic commercial banks, which sell them, in turn, to central banks. This, despite the sterilisation, increases liquidity of Asian banks, which boosts their lending<sup>30</sup>. Such a situation is one of the reasons behind the abundant liquidity on the global interbank.

With the few exceptions, the absence of well developed capital markets in the surplus countries is one of the factors, which forced central banks to play the role of global institutional investors for which they are not fully prepared. They are not fully prepared for this role, as - unlike "real" investment funds – central banks cannot transfer the whole investment risk to their clients. The traditional task of central banks is to invest foreign exchange mainly in liquid securities to avoid taking too much risk.

Even if we take into account that it is very difficult to determine the optimal volume of foreign exchange reserves, it is obvious that many central banks in Asia hold at present foreign exchange reserves in excess to such a level. Foreign exchange reserves held by the Bank of China are almost as high as equity of 9 thousand of hedge funds operating on the global market<sup>31</sup>. Thus, central banks will have to invest a part of their foreign exchange reserves in more risky assets to improve the Sharpe ratio in the interest of tax payers<sup>32</sup>.

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<sup>30</sup> M. S. Mohanty, P. Turner, "Foreign exchange reserve accumulation in emerging markets: what are domestic implications?", BIS *Quarterly Review*, September 2006, p. 43

<sup>31</sup> Considerable impact of hedge funds on financial markets results from their frequent use of the leverage.

<sup>32</sup> S. J. Fisher, M. C. Lie, "Asset Allocation for Central Banks: Optimally Combining Liquidity, Duration, Currency and Non-Government Risk". W: C. Bernadell, P. Cardon, J. Coche, F. X. Diebold, S. Manganelli (eds.), *Risk Management For Central Bank Foreign Reserves*, ECB, Frankfurt, 2004, p. 75-91

As the central banks are limited in their abilities to take risk, there are proposals to establish an international financial institution, which would help central banks to diversify their international reserves<sup>33</sup>.

## **6. Concluding remarks**

Globalisation of financial markets has been made possible due to liberalisation of capital flows and technological progress. Globalisation enabled the emergence of a system of liquid financial markets. This is a new phenomenon in economic history.

The activity of various financial institutions added to the development of the global financial market.

Institutional investors operating on a global scale contributed to the improved liquidity of local capital markets and to the strengthening of the corporate governance in different countries. The activity of commercial banks dealing rooms contributed to the development of derivative markets. Despite concerns about the lack of effective supervision over the hedge funds, their activity was also a driving force behind the increasing number of liquid financial markets, which increased the number of financial instruments used in financial management.

In the last few years central banks of the surplus countries have become global institutional investors on a large scale. These phenomenon results partly from the fact that in many surplus countries capital markets are not developed enough to effectively 'recycle' excess of export earnings to capital markets of the deficit countries.

Globalisation of financial markets, despite its apparent advantages, also rises concerns. From the very beginning such concerns have been associated with increased mobility of short-term capitals, which enabled violent speculative attacks on many currencies in the Nineties. At present, concerns are raised about thousands of hedge funds, which are not properly supervised.

The risk of speculative attacks, which would have triggered bank crises, has slightly "faded" as a result of the spread of floating interest rate regimes, and due to the

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<sup>33</sup> L. H. Summers, "Reflections on Global Account Imbalances and Emerging Markets Reserve Accumulation", L.K.Jha Memorial Lecture, Reserve Bank of India, March 2006

improving supervision of banks. The risk that hedge funds may instigate turmoil on financial market is reduced by the fact that they are also managing their risk and their shareholders are more and more assertive in demanding better corporate governance within the sector. Usually hedge funds go bust not because they take “unreasonable” risk but they become short of “new ideas” how to outperform the market.

What worries the economists is the persistently high volatility of asset prices despite the reduced scale of business fluctuations<sup>34</sup>. This increased volatility of asset prices might be the unwanted product of the central banks success in reducing inflation<sup>35</sup>. Consequently, more frequently than in the past, central banks might be confronted with the necessity to prevent the emergence of speculative bubbles<sup>36</sup>.

Although the theoretical aspect of this issue are complicated, yet, in the past few years a number of central banks have clearly taken into account the situation on the property market in their monetary policy decision.

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<sup>34</sup> K. Rogoff, “Impact of Globalization on Monetary Policy”, referat na konferencję Banku Rezerwy Federalnej w Kansas City “The New Economic Geography: Effects and Policy Implications”, Jackson Hole, Wyoming, August 24-26, 2006, p. 12-13

<sup>35</sup> Ch. Goodhart, F. Cappie, S. Fisher, N. Schnadt, *The Future of Central Banking*, Cambridge University Press, 1994, p. 31

<sup>36</sup> White, R. W., „Is Price Stability Enough?”, *BIS Working Paper*, No. 205, April 2006

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