

NEW YORK	TOKYO	SINGAPORE	JAKARTA	FRANKFURT	LONDON	NEW YORK	CHICAGO
6:45	15:16:46	14:16:46	13:16:46	7:16:46	5:16:46	1:16:46	0:16:46
18 FEB 08	18 FEB 08	18 FEB 08	18 FEB 08	18 FEB 08	18 FEB 08	18 FEB 08	18 FEB 08
30/35	107.84/87	1.4109/29	9140/ 9145	1.4894/85	1.5623/26	DJI12348.21	UST3.7647

0.00	INR	39.65	JPY	2.705	SGD	7.98	CHF	4.25	EUR	211.61	HKD	2.06	RMB	29.25	USD	76.04
06.70	KRW	945.35	THB	40.63	MYR	8.00	GBP	3.12	USD	159.36	INR	1.89	FED	3.00	AUD	1.1511
7.52	OIL	96.13	TRX	32.51	TRY	9091/9183	3.43	EUR	60.74	USD	2.75	BOE	4.00	AUD	JPY	99.48
7.95	M250	13635.4	1137	UGA	8637/9637	3.96	NZD	0.79	USD	3.76	BOE	5.25	NZD	JPY	85.56	



Chapter 4

Exchange Rate

Chapter 4: Exchange Rate

During the past year of 2007, the rupiah exchange rate on average remained stable and strengthened, compared to the previous year bolstered by improving domestic macroeconomic fundamentals amidst volatility in the global economy and turbulent financial markets. The subprime mortgages crisis in the United States, which expanded globally, coupled with the soaring oil price during the second half of 2007 triggered depreciatory pressures on the rupiah exchange rate. However, the adoption of consistent and prudent monetary and fiscal policies, along with currency stabilization policy measures, had minimized such pressures and accordingly maintained exchange rate stability.

The rupiah exchange rate during 2007, in general, was stable with decreasing volatility. On average the rupiah strengthened against the US dollar by 0.3% from Rp9,167/\$ in 2006 to Rp9,140/\$ (Chart 4.1). The rupiah exchange rate stability was further reflected by decreasing volatility from 3.9% in 2006 to 1.4%¹ (Chart 4.2). However, in terms of point to point, the rupiah depreciated by 4.2% from Rp8,995/\$ at the end of 2006 to Rp9,393/\$ by the end of 2007, in particular as a result of external pressures during the second half of 2007. Rupiah exchange rate stability was supported by greater public confidence, amid a sluggish global economy and inauspicious money markets, both domestically and internationally, in the Indonesian economy and the high yielding domestic financial market. Pressures on the rupiah exchange rate during the second half of 2007 stemmed primarily from the subprime mortgage debacle in the US that expanded globally (Box: Impacts of the Subprime Mortgage Crisis on Indonesian Financial Markets) and the dramatic hike in the global oil price. However, prudent and consistent monetary and fiscal policies as well as measures taken by Bank Indonesia to stabilize the currency were able to mitigate a further rupiah exchange rate slide.

In the first semester of 2007, the rupiah tended to appreciate as foreign portfolio capital inflows to the domestic financial market increase. This was

buttressed by improving macroeconomic fundamentals as reflected by the balance of payments which ran an increasing surplus, lower inflation, robust economic growth and well-controlled fiscal sustainability. Such developments are inextricably linked to the prudent and consistent macroeconomic policy management pursued to boost public confidence, both domestically and internationally, in the rupiah. In addition, amid burgeoning liquidity excess in the global financial system, the high yielding domestic financial market also played a role in attracting such foreign portfolio capital inflows. Against this propitious backdrop, the rupiah appreciated, peaking in May 2007 at a monthly average of Rp8,838/\$.

However, global risk increased and put pressure on the rupiah exchange rate during the second semester of 2007. The subprime mortgage crisis in the USA triggered volatility in the global financial market, encouraging global investors to avoid assets regarded as high risk, including emerging market assets. The crisis also precipitated capital reversal in the domestic financial market which sparked pressures on the rupiah. Meanwhile, the soaring global oil price raised the need for foreign exchange to import oil. As a result the rupiah began to depreciate in the second half of 2007, reaching its lowest in August 2007 with a monthly average of Rp9,372/\$. Thus, the rupiah dynamically strengthened during the first half of 2007

¹ Rupiah volatility is an indicator to measure rupiah fluctuations by calculating the deviation of daily rupiah exchange rate from the annual average (250-day moving average).

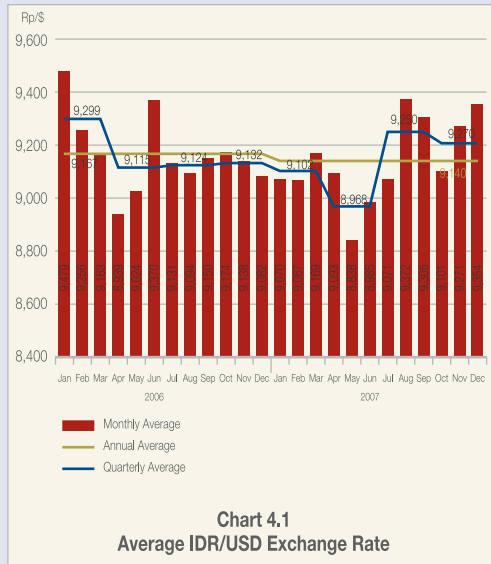


Chart 4.1
Average IDR/USD Exchange Rate



Chart 4.2
IDR/USD Exchange Rate and Its Volatility

but subsequently fluctuated in the second semester (Chart 4.2).

Factors Affecting the Exchange Rate

Domestic Factors

Domestic macroeconomic fundamentals remained conducive to support rupiah exchange rate stability. Sustainable domestic economic growth during 2007, relatively well-controlled inflation in line with its specified target, as well as consistent and prudent macroeconomic policies all helped boost market confidence in the rupiah. In the midst of a series of external shocks, economic growth in 2007 reached 6.3% with inflation at 6.59%, while fiscal conditions remained sustainable. Furthermore, the current account and the overall balance of payments ran a sufficiently large surplus in 2007 and foreign exchange reserves increased significantly. Well-maintained economic fundamentals preserved foreign investor confidence in domestic economic conditions as well as in the economic outlook in the midst of external turbulence. This, combined with the relatively high yield on rupiah investments, ensured that the global portfolio capital inflows during 2007 remained high, despite limited capital reversal due to several external shocks.

Solid balance of payment performance increased the potential supply of foreign exchange and reserves, which underpinned rupiah exchange rate stability. In

2007, the current account balance recorded an \$11-billion surplus, exceeding that of 2006 which totaled \$10.8 billion. The large surplus played as a buffer in balancing the decline in capital account surplus, which was principally due to capital reversal mainly in the third quarter of 2007. Still, as a whole the balance of portfolio investment transactions had managed to record a \$10-billion surplus in 2007. Such a solid balance of payments was also reflected by the increase in foreign exchange reserves and net foreign assets. Foreign exchange reserves swelled from \$42.6 billion in 2006 to \$56.9 billion in 2007. Whereas, the net foreign assets –as an indicator of potential foreign exchange supply in the domestic foreign exchange market– increased from \$45.9 billion in 2006 to \$55.71 billion in 2007 (Chart 4.3).

Investment risk in Indonesia improved in line with preserved economic fundamentals. Investment risk on rupiah financial assets reduced, owing to this strong economic fundamentals. Several risk indicators improved in 2007, reflected by the elevated Indonesian sovereign credit rating as well as improved Country Risk Index. Favorable economic fundamentals coupled with consistent and prudent macroeconomic policy management were considered in the awarding of Indonesia's sovereign credit rating by Moody's, Rating and Investment Information (R & I) and Japan Credit Rating Agency (JCRA). Moody's raised Indonesia's rating from 'B1' to 'B1+' on 1st August 2007, and again

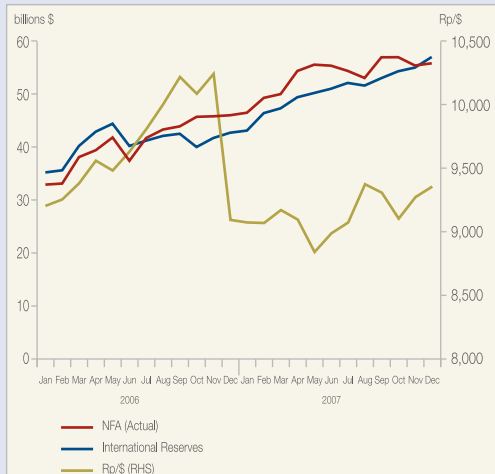


Chart 4.3
International Reserves, NFA, and Rupiah



Chart 4.4
Indonesia Country Risk Index

to 'Ba3' on 18th October 2007. As well, R&I raised Indonesia's rating from 'BB' to 'BB+' on 31st October 2007 while JCRA moved the rating up from 'BB-' to 'BB' on 6 September 2007. Indonesia's rating is currently approaching 'investment-grade' and nearing that of the pre-crisis level.

In addition to the credit rating, other risk indicators such as the Country Risk Index issued by the International Country Risk Guide also indicated a gradual improvement from 68 in 2006 to 70.5 in October 2007

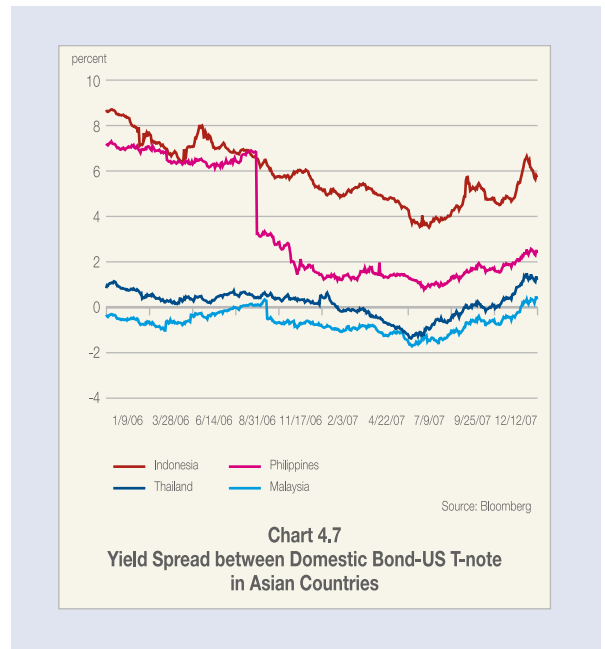
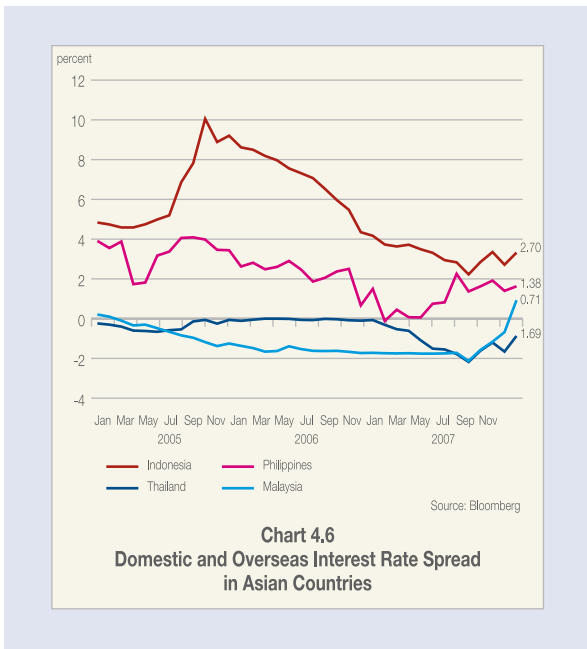
(Chart 4.4). Yield spread between Indonesian global bonds and US T-notes also showed an upsurge. However, the increase was due more to a decline in US T-note yield stemming from an increase in global investment funds to this instrument as a result of the subprime mortgage fiasco in the US (Chart 4.5).

The investment yield on rupiah assets throughout 2007 was still attractive. Despite the decline in BI Rate from the end of 2005 to November 2007, the Indonesian interest rate continued to remain competitive regionally. The yield of rupiah investments tended to decline, both measured by the uncovered interest rate parity (UIP)² as well as the covered interest rate parity (CIP) which incorporated risk factor, that is the UIP minus the yield spread between the Indonesian global bonds and the US T-notes. UIP decreased dramatically from 4.16% at the end of 2006 to 2.70% (Chart 4.6). The decrease was attributable to the 175-bps drop in the BI Rate in 2007. Conversely, CIP decreased to 0.45% by the end of 2007, which was far below the previous year's 2.94%. Despite its declining trend, the domestic interest rate remained relatively higher than that of several countries in the region. This implies that investments in rupiah assets were still more profitable. Investments in rupiah bonds also offered attractive yield, as reflected by the highest yield spread between domestic bonds



Chart 4.5
Yield Spread of Indonesian Global Bond - US T-note

2 The domestic interest rate is calculated using the 1-month Jakarta Inter Bank Offered Rate (JIBOR) denominated in rupiah and the foreign interest rate applies the 1-month Singapore Inter Bank Offered Rate (SIBOR) denominated in US dollars.



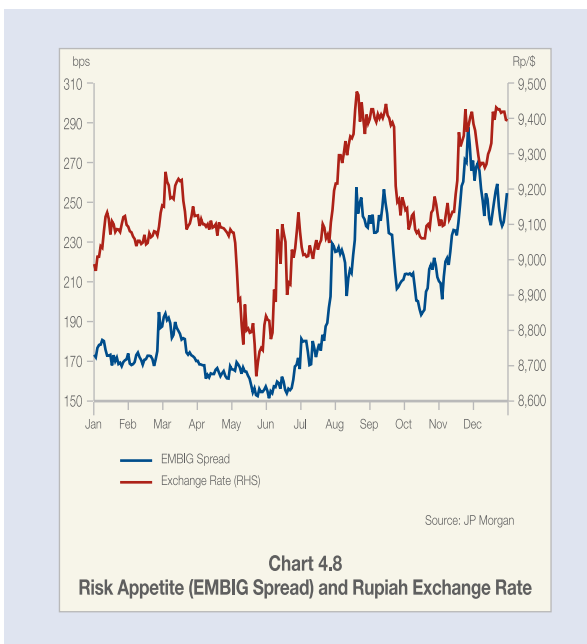
and US T-notes in the region (Chart 4.7). The high yield on rupiah investments guaranteed the Indonesian money market as an attractive destination for global portfolio inflows.

International factors

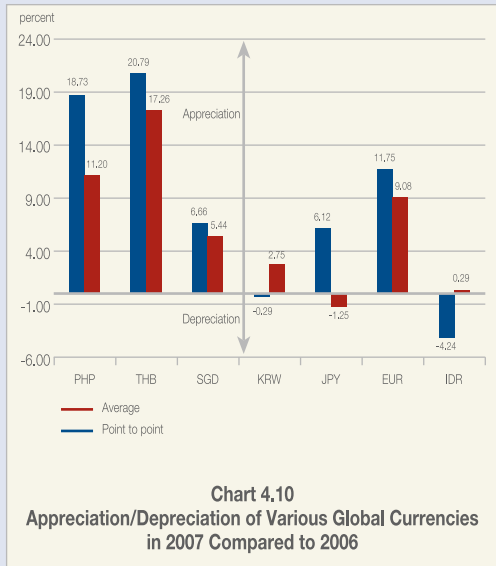
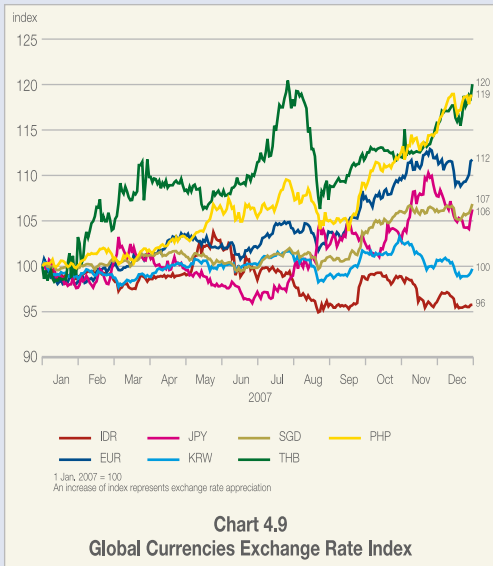
In the first half of 2007, the global financial market was marked by excess liquidity and US dollar depreciation as part of the adjustment process for ongoing global economic imbalances. Such conditions boosted carry trade transactions, particularly in emerging

market countries, including Indonesia. Risk taking by global investors in the financial markets of emerging market countries also arose in line with improving macroeconomic fundamentals in these countries. This was reflected by the narrowing of emerging market bonds yield to that of US government bonds as a measure of the risk appetite of global investors (Chart 4.8).

Global risks intensified during the second half of 2007, undermined by the subprime mortgage crisis. The crisis triggered volatility in the global financial market commencing at the end of July 2007 and forced global investors to reprice risk on investment in emerging market assets. Such developments provoked capital outflows from emerging market assets (flight to quality), including rupiah assets. Further pressures emanated from the soaring oil price that peaked at \$98.9 per barrel³ in the second semester of 2007. Despite the greater demand for foreign exchange to pay for imports due to the rising oil price, the resultant pressure on the rupiah was minimal. Oil price pressure against the rupiah was transmitted through of limited foreign portfolio adjustments in the SUN market as uncertainty intensified due to inflationary pressures. Against such an ominous backdrop, the rupiah tended to depreciate against other hard currencies during the second half of 2007 (Chart 4.9 and Chart 4.10).



3 WTI oil price as of 20th November 2007.

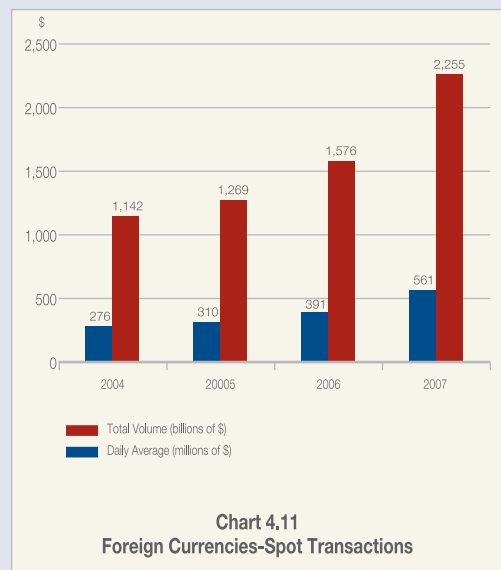


Transactions in Foreign Exchange Market

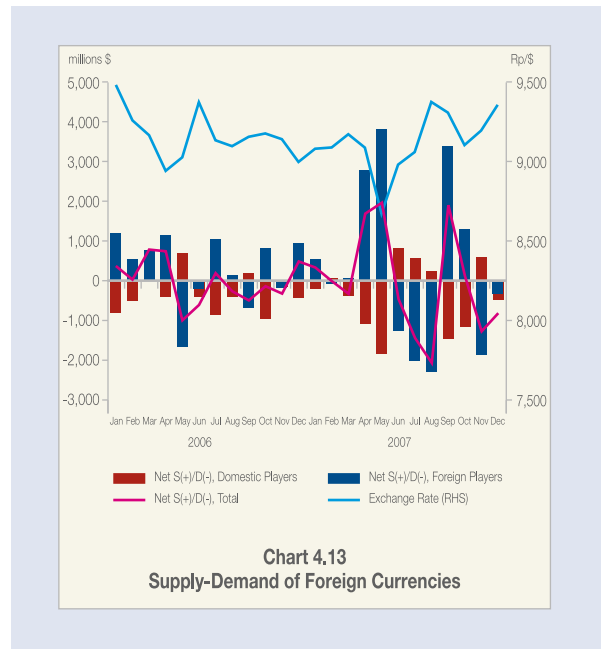
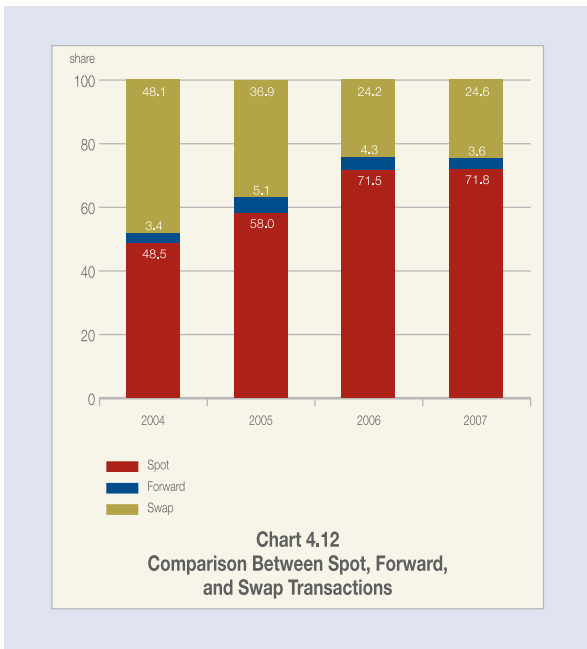
Foreign capital inflows drove the performance of the foreign exchange market, and balanced the supply and demand for foreign exchange. The developments of domestic foreign exchange market was characterized by the increasing volume of transactions as recorded in the spot, forward and swap markets. Total volume of foreign exchange transaction in the spot market for 2007 arrived at \$561 billion, 43.5% higher than the \$391 billion reported in 2006 (Chart 4.11). Meanwhile, the volume of foreign exchange transactions in both the forward and swap markets in 2007 increased by 19.1% and 45.1% respectively to \$28 billion and \$192 billion. The spot market structure remained relatively unchanged. Spot transactions continued to be dominated by exchanges between US dollars and rupiah as has occurred in previous years.

The volume of spot transactions became more dominant vis-à-vis forward and swap transactions, as indicated by the increasing share of spot transactions (y-o-y) (Chart 4.12). The surging share of spot transactions was partly attributable to the restrictions applied on derivatives transactions from July 2005⁴. This reduced speculative transactions, which, in general, supported the rupiah exchange rate.

Most foreign funds were invested at the beginning of the year prior to the subprime mortgage crisis in USA, which began at end of July 2007. Despite significant foreign capital inflow, excess demand for foreign exchange persisted. Throughout 2007, net foreign capital inflow to the domestic foreign exchange market reached \$4.0 billion, slightly below the net inflows of 2006, which topped \$4.3 billion. On the other hand, the demand for foreign exchange by domestic players totaled \$4.4 billion, higher than the \$4.2 billion demanded in 2006. Hence, in 2007, the foreign



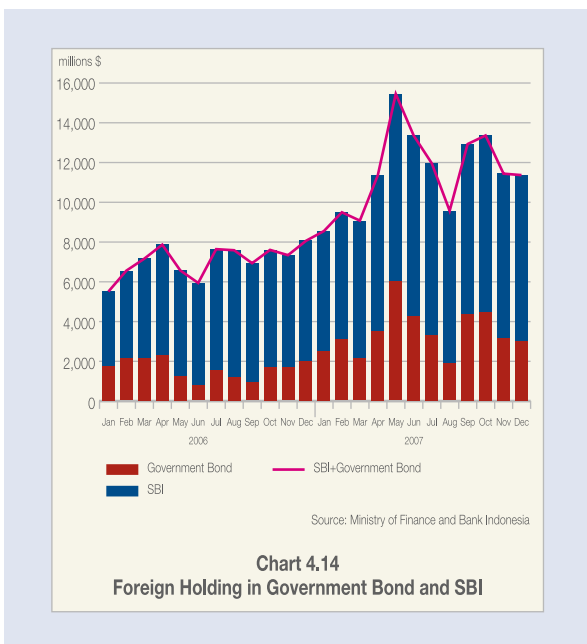
4 Through PBI no 7/14/PBI/2005 on the Restrictions on Rupiah Transaction and Extension of Foreign Exchange Credit by Banks



exchange inter-bank market experienced excess demand of \$372 million, contradictory to the previous year which recorded an excess of supply amounting to \$181 million (Chart 4.13). This evidences greater pressure on the rupiah, leading to depreciation against US dollar on a point to point basis, albeit appreciating in terms of annual average.

Foreign capital inflows in 2007 were placed in several rupiah assets, namely stocks, government bonds (SUN) and Bank Indonesia Certificates (SBI). Placement in

stocks dominated foreign capital inflows amounting to Rp32.6 trillion (\$3.6 billion). Stock placements became investors' preference amid declining interest rate trend and narrowing bond yield spread. Still, the yield spread of Indonesian bonds remained relatively higher than that found in other countries. Meanwhile, placements in SUN reached Rp23.2 trillion (\$2.6 billion) for the year; the second largest after stocks. As such, foreign entitlement on SUN increased with a total value of Rp78.2 trillion (\$8.4 billion), whereas the foreign placements in SBI rose by Rp9.9 trillion (\$1.2 billion). Consequently, the total value of foreign entitlement in SBI moved up to Rp28 trillion or \$3 billion (Chart 4.14).



Policies Taken

Rupiah stability in 2007 was buoyed by the exchange rate management policy undertaken, which was directed to achieve equilibrium between the economy's internal and external balance. In this regard, a measured policy of intervention in the foreign exchange market was continuously pursued in order to control exchange rate volatility. As such, rupiah volatility eased from 3.9% in 2006 to 1.4% in 2007. In addition to the intervention policy, Bank Indonesia also strengthened their communications strategy, enhanced the effectiveness of prudential regulations and monitored the flows of foreign exchange.

Impacts of the Subprime Mortgage Crisis on Indonesian Financial Markets

Chronology of the Subprime Mortgage Crisis

The low interest rate in the US from 2000 to 2004, loosened requirements for mortgages, coupled with competition among lenders had increased loans to borrowers with low creditworthiness (subprime borrowers). The extension of subprime mortgages to subprime customers totaling just \$213 billion in 2002 had sky-rocketed to \$665 billion in 2005. In addition, securitization based on subprime mortgage collateral continued to elevate through financial engineering in the form of Asset Backed Securities (ABS) and Collateralized Debt Obligation (CDO).

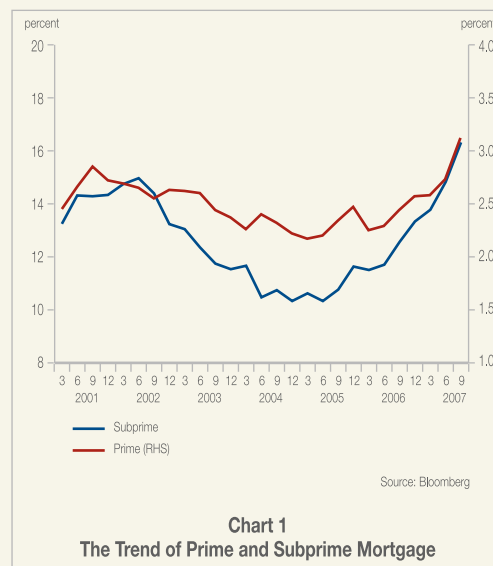
The magnitude of potential profit obtainable through subprime mortgage securitization encouraged a number of major financial institutions to enter this business segment including Bear & Sterns, HSBC and Citigroup. The CDO product became more attractive as it received high ratings from ratings agencies like Standard and Poor's as well as Moody's. High yields also attracted investors from numerous countries to purchase CDO. From 2003-2007, issuances of ABS and CDO collateralized by subprime mortgages increased sharply reaching over \$450 billion in 2006.

Why did the subprime mortgage related businesses quickly develop into a global crisis? Most mortgages were Adjustable Rate Mortgages (ARM), for which the interest rate was fixed during the first few years but subsequently followed market interest rates. Due to the high risk inherent with subprime mortgage borrowers, the interest rate imposed was ARM plus a specified margin.

In line with the rising interest rate trend since mid 2004, the burden of repayment installments by subprime borrowers became heavier, rendering them unable to repay their loans and leading to increased cases of defaults (Figure 1). Almost simultaneously, property sector prices plummeted. As a result, subprime mortgage lenders suffered catastrophic losses, several

even came to closure. In the middle of 2007, the accumulation of non-performing loan in the US housing sector peaked and ultimately triggered turbulence in the global financial markets. Surging non-performing loans forced investors to reconsider their investments in CDO due to the falling collateral value of the securities. The price of CDO plunged. Whereas, the series of losses endured by subprime mortgage lenders resulted in a dramatic slide in share prices in the US, which quickly spread to all shares in the financial sector, particularly banks.

The drop in share prices in the US quickly spread on a global scale, particularly to the share prices of financial institutions outside the USA with exposure, be it direct or indirect, to CDO. Global investors who realized their exposure to CDO simultaneously reconsidered their investment risk (repricing of risk). As a result, a significant shift from high risk financial assets to relatively safe assets occurred, for example to US government bonds (flight to quality).



The crisis of confidence in CDO continued to propagate, causing greater difficulties for subprime mortgage lenders and issuers of Asset Backed Commercial Papers (ABCP) to obtain funds in the credit market. This happened because most investors refused to extend their investment funds in ABCP. Consequently, the banking sector, as the guarantor of ABCP, was forced to resume control of the supply of funds to subprime mortgage lenders, which burdened the bank balance sheet. Such developments resulted in a tight inter-bank money market, particularly of 3-month tenures. The actions taken by the Federal Reserve to cut its interest rate in August 2007 and inject huge amounts of liquidity through coordination with a number of other central banks could only temporarily cool financial market volatility.

The continuing drop in property prices, financial market instability and tight mortgage lending standards, pressurized public consumption in the US. In addition, the manufacturing sector also began to feel the impacts of weaker consumption, which triggered a wave of layoffs. On the other hand, a number of financial institutions, including prominent US investment banks, reported significant losses from the CDO business, which at the end of 2007 had went beyond \$100 billion. Approaching year end 2007, the US economy fell under the shadow of recession, therefore, pressures on global financial markets continued.

Volatility in the global financial market due to the second-round effects of the subprime mortgage crisis compelled global investors to reprice risk on their investments. The withdrawal of funds from their investments in the financial markets of 'risky' developing countries intensified pressures on most of the countries' currencies. The withdrawal of global investors' funds was, in itself, an effort to cover their losses from the bearish financial markets in developed countries.

Impacts on the Domestic Financial Market

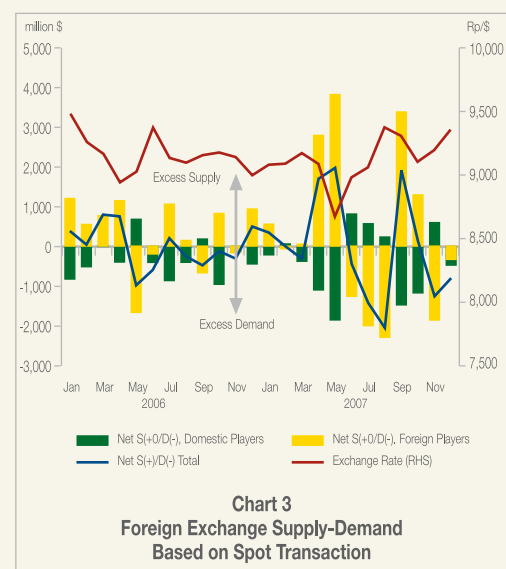
Financial institutions in Indonesia were identified as having no exposure to the commercial papers collateralized by subprime mortgages. Nevertheless, volatility in the global financial markets triggered by the subprime mortgage turmoil raised volatility and uncertainty domestically, which encouraged capital outflows from rupiah investment instruments. In a turbulent global financial market, investors tend to save their money by avoiding risky investment instruments

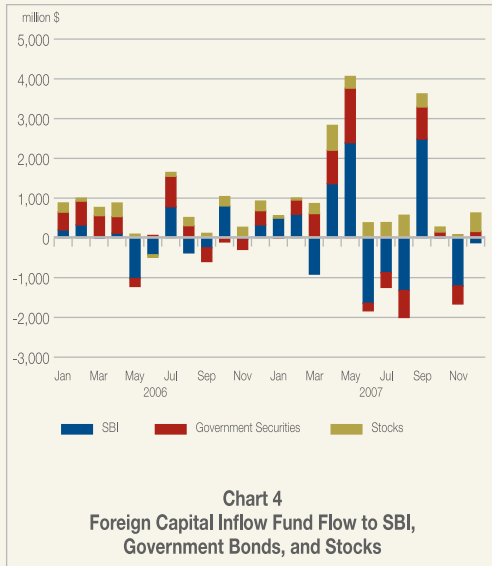


(risk aversion), including instruments issued in emerging markets like Indonesia.

During the subprime mortgage crisis, the risk appetite of global investors for emerging market assets went down, as reflected by the widening spread of Emerging Market Bond Index Global (EMBIG) against US Treasury Bonds. Risk appetite was also highly correlated to the rupiah exchange rate. This was reflected by the broadening spread of EMBIG followed by depreciatory pressure on the rupiah (Chart 2).

Foreign capital outflows escalated from June 2007 until August 2007; which exacerbated pressures on





the rupiah exchange rate (Chart 3). The withdrawal of foreign investments from the Indonesian financial market originated in part from Bank Indonesia Certificates (SBI) and government bonds. However, foreign investment in the stock market continued to flow in (Chart 4). Subsequently, capital outflows diminished and inflows even began to resurge significantly following The Fed's decision to discount its Fed Fund Rate by 50 bps on 18th September 2007.

The subprime mortgage turmoil has become deeper and wider than most experts predicted. In November 2007, the financial market again suffered

from turbulence since the housing sector crisis had developed into liquidity and credit crises that pushed the US economy closer towards a recession, and a series of losses was reported by major financial institutions. Coupled with the soaring world crude oil price, which approached \$100 per barrel, foreign capital outflows began once again. As a result, the rupiah exchange rate refaced immense pressure, albeit fading towards the end of 2007.

Although Indonesian financial markets suffered from the fall out created by the US subprime mortgage crisis, the impacts were, however, well minimized. Economic fundamentals, duly supported by improved macroeconomic policy management, have rendered the Indonesian economy better resilience to external shocks. Such conditions were absent a few years ago when external shocks triggered prolonged volatility necessitating Bank Indonesia to raise its BI Rate significantly and the government to reduce its fuel subsidies.

The improvement in Indonesian economic fundamentals was reflected by a number of key indicators, including among others, the large surplus in the balance of payments, the well controlled inflation rate to year end 2007 and sustainable economic growth. In addition, rupiah investment instruments continue to promise attractive yields; the highest in Southeast Asia. Against this opportune backdrop, Indonesian financial markets remain an attractive global investment destination.