RECENT FINANCIAL MARKET DEVELOPMENTS AND THE HEALTH OF FINANCIAL INSTITUTIONS

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The present note aims to guide discussion on recent developments in financial markets. It is organised as follows.

- Part I describes selected financial market developments since the last meeting of the Insurance Committee and highlights some risks to the near-term outlook.
  - Part II focuses on the condition and health of financial institutions against the background of the recent bear market environment.

I. Selected financial market developments since July 2002

Downward revisions to the near-term real economy outlook and “financial headwinds”

1. At the time of the last CMF meeting in April 2002, financial markets were characterised by “guarded” optimism regarding the near-term outlook for economic activity. Even before macroeconomic data turned more favourable, prices on various financial market assets had suggested that market participants were anticipating an early recovery. For example, except for Japan, yield curves had steepened in most of the major markets and futures markets had priced in considerable tightening of policy rates in G-7 countries by the end of 2002. And equity prices in major markets had recuperated the losses incurred after the September 11 terrorist attacks. A major factor in the restoration of confidence in an early recovery of world economic growth, it had been said, was the resilience of the financial sector at the beginning of this year.

2. However, since the last meeting, the views on the near-term outlook for many of the major economies have changed. Growth prospects have weakened, even though moderate growth in most major countries is still seen as the most likely scenario. Recent economic indicators disappoint, while forward-looking survey indicators for manufacturing now suggest that a solid recovery may be rather slow to materialise, and recent readings of the OECD composite leading indicator have been clearly pointing to a slowdown of world-wide economic activity.

3. While developments in the real economy have been disappointing, problems have continued to accumulate for the financial system. Uncertainty is high, as reflected in implied volatilities on bond and equity markets. Further erosion of investor confidence might lead to persistent and broad-based risk aversion, possibly causing a retrenchment from credit markets and risk-taking more generally. Higher risk premiums, declining asset prices and prolonged uncertainty have been interpreted as manifestations of so-called “financial headwinds”. While they reflect in part a correction to past excesses and a move to a sounder equilibrium in the medium-term, they may also raise systemic concerns in the short-term. For policymakers, the question is to what extent these “headwinds” bear on economic activity and financial stability. In a number of countries, the existence of such headwinds has been one of the reasons why policy rates remain below levels traditionally considered neutral. Looking ahead, the path by which policy rates move will depend on whether and how quickly the headwinds dissipate.

Selected equity, bond and derivatives market developments

4. During much of the period since the last meeting, financial markets became increasingly characterised by bear market sentiments. Equity prices in major markets have been falling considerably.

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The drops were across a much wider range of sectors than in the previous two years, when much of the decline reflected the weakness of the TMT sector. They seem to reflect a variety of different factors, including corporate failures, disappointing profit announcements, ongoing concerns about the accuracy of corporations’ reported financial data and governance practices, uncertainties regarding the strength of the recovery and the perception of the risk of a war, with associated uncertainties about oil prices. Currently, equity market indices in several markets are below the lows reached just after the September 11 attacks. Looking ahead, if prices remain close to current levels until year-end, this would be the third consecutive year of negative equity market returns in the United States. Such a lengthy bear-market episode has only occurred twice before in history (i.e. from 1929 to 1933 and from 1939 to 1941). In part, it is a correction to what was an unrealistically high equity valuation, but the persistence of such a negative trend may have serious and widespread economic and financial implications.

5. In the major government bond markets except Japan, yield curves have shifted down significantly and flattened at the short end. Initially, this suggested that market participants viewed a rise in policy rates as less likely in the near-term. Subsequently, they priced in expectations for further interest rate cuts before the end of the year, as evidenced by future contracts in the United States and the euro area. At the long end, expectations of lower inflation and weaker activity reduced yields to or just a shade above their lowest levels for decades. As yield curves derived from government bonds are generally quite good indicators of future inflation developments, the flattening of yield curves, it has been argued, highlights the risk of deflation.

6. In the corporate bond market, even though long-term risk-free interest rates have been declining, yields have either risen, as in the United States, or declined significantly less than the former. The corporate bond market initially seemed more resilient than the equity market, but eventually the negative sentiment from the equity market seemed to spill over and depress the bond market as well. The deterioration in credit conditions and the rise in spreads have been most notable in the United States’ high-yield market. Among high-grade issuers, problems have emerged as well, as evident in conditions in the commercial paper market -- particularly in the United States -- and in long-term bond markets. A notable development has been the record number of “fallen angels”, companies whose outstanding bonds were downgraded from investment grade to junk status. In Europe, the financial troubles of some of these companies, often prominent and large ones, may have adversely affected the valuation of European bank stocks, given the companies’ more heavy reliance on bank loans than e.g. their counterparts in the United States. Out of a total 36 issuers downgraded by Standard & Poor’s during the third quarter of 2002, banks (seven downgrades) and insurers (four) were behind only the industrial sector (seventeen) among those most affected.

7. Continuing credit risk deterioration and rising uncertainty were reflected in increases of implied volatilities and prices for credit derivatives. Particularly pronounced were price increases for financial instruments that protect against extreme downside risks, such as out-of-the-money put options and credit default swaps. In response, banks have been reassessing their exposures in the markets for the latter. As a

2. Empirical research has confirmed a strong predictive power of the slope of yield curves for future inflation. The predictive content appears to be particularly strong over medium-term horizons of three to five years and in terms of predictions of the direction of future price developments. For example, applying the parameter estimates from a recent study to the recently observed yield spreads, medium-term deflationary pressures would have been signalled since July. (This uses the parameter estimates for the 4 minus 1 year spread from Estrella, A., A. Rodrigues and S. Schich, “How Stable is the Predictive Power of the Yield Curve?”, Federal Reserve Bank of New York Staff Report 113, September 2000. Implications would be different if other parts of the yield curve were used.)

result, it has been reported, many counterparties now prefer to keep their net exposure to each other close to zero in the market for credit default swaps.4 The trading of derivatives, especially of exchange-traded ones, has been growing fast during recent months, reflecting investors' reaction to the bear market, marked by pronounced risk aversion.

8. Lately, there have been a few indications that the pessimistic mood in the marketplace may have bottomed out. Somewhat declining risk aversion was reflected in drops of credit spreads in Europe and especially the United States during the last week of October. Equity markets in the United States and, to a somewhat lesser extent, in Europe have stabilised or rallied during October, though starting from levels that were below the 1998 troughs. In the United States, an important factor behind the stock market’s uptick appears to have been the perception that earnings have been doing better than expected in the third quarter. Whether this signals a sustainable shift in investor confidence remains to be seen, especially as news about the economy, except for housing in some cases, have been mostly disappointing and near-term risks are still considered to be heavily weighted on the downside.

Continuing imbalances and other risks

9. Several risks to the near-term baseline scenario of moderate growth exist, including continuing household and corporate financial imbalances. As discussed by the Committee at its last meeting, important challenges are associated with the accumulated financial imbalances that have not been worked off during the economic downturn, the reduction would be even more complicated in a deflationary environment. Uncertainties are associated with the resilience of household balance sheets in the presence of further declines in equity prices and a correction to residential house prices. If balance sheets are impaired and financial imbalances aggravated as a result of such equity and property price adjustments, there may be an adverse effect on spending by households, as the latter may want to improve their financial positions. As well, further declines in equity prices and the deterioration in credit quality that might occur during a delayed or weaker-than-expected recovery would have adverse effects on corporate spending, putting at risk the hoped-for investment rebound. In this context, attention recently has focused on the growing pension funding gap that tends to reduce funds available for investment. Another uncertainty is associated with imbalances between major geographic regions.

Current account imbalances and exchange rate valuations

10. Since the last meeting, the depreciation of the US dollar has been less than some analysts expected and, despite the weakening of the currency, a further deterioration of the US current account deficit has occurred. While the associated demand effects provide a welcomed relief to some countries, risks associated with an eventual correction have probably increased. In this context, at least three observations are noteworthy. First, growth of the current account deficit was initially driven by an increase in US private investment. But since 1999, its subsequent expansion has reflected higher consumption and lower relative private saving rates in the United States, with implications for sustainability. Second, fast growth and buoyant expectations of future profitability of investment led to capital inflows into the United States. But, with hindsight, investment was not as profitable as was forecast. And, looking ahead, if the investment rebound does not occur as hoped, productivity expectations may be disappointed. Third, the deficit is large both in absolute and relative terms and history shows that large deficits cannot be sustained for long. History also illustrates that significant changes in real effective exchange rates are typically part of the adjustment mechanism and that substantial trend reversals can occur suddenly, with potentially destabilising effects. Such effects could be accelerated by a steep rise in oil prices, as the latter have

traditionally exerted a negative impact on the value of the US dollar. Mitigating these risks may be the possibility that investors might decide that there are few more desirable places to invest, at least until there are more credible signs of higher growth elsewhere.

Consumption, property prices and household financial imbalances

11. The expansion of consumer spending has been remarkably robust, especially in the United States during most recent months, partly reflecting the effects of tax cuts, low interest rates and, initially, declining oil prices. Many homeowners in the United States took advantage of lower interest rates to refinance their mortgages and extract equity from their homes, supporting spending. To date, the drag from stock market losses – as of end-October 2002, the world’s capital market capitalisation had already fallen more than a third since its peak in March 2000 – has been largely offset by declining interest rates and rising home prices. While share and house prices have traditionally moved in the same direction, house prices have continued to increase at a rapid pace since 2000 in most major countries, except for Japan and Germany.

12. Going forward, it appears unlikely that the current rate of house price increases will be sustained. If typical historical relationships between house prices and its determinants, i.e. income, interest rates and equity prices, are to provide any guidance, house prices are likely to come under pressure. Housing price appreciation may already have reached a turning point in the United States, while elsewhere, especially in the United Kingdom, signs of cooling down appear to be more limited. The effects on household financial balance sheets of falling house prices could be serious, in particular as, and unlike in the case of most of the equity market investments, housing investments have been largely financed by debt in the form of mortgages. Given pre-existing large household financial imbalances, falling residential house prices may lead to attempts by households to increase their savings, with adverse effects on the growth of consumer spending. If deflation causes real debts to increase, indebted households may have to cut spending or sell assets to meet their payments. In any case, the increases in household disposable income that previous bursts of refinancing have produced are unlikely to be repeated on the same scale, given that the fall in mortgage rates has slowed, thus decreasing the stock of mortgages suitable for refinancing. Most recently, United States retail sales have started to weaken and consumer confidence fell again, in October, to a nine-year low.

Investment, corporate indebtedness and pension funding gaps

13. Expectations regarding an early investment rebound have been disappointed. In the euro area, investment has been weaker than expected. In Japan, business investment is currently declining and expected to stabilise at best. In the US, declines in business investment spending underway since the end of 2000 have continued into mid-2002, albeit at a slowing rate. However, the declines in the United States may draw to a close, especially as there are some indications that the investment overhang is being worked off. For example, the growth of the business fixed capital stock has slowed to its lowest rate in the past four decades, and the stock of capital relative to output has receded to its longer-term trend after having risen noticeably above that trend during the late 1990s. Against this background, a recovery in business fixed investment in the United States is projected for next year by many observers. The euro area is expected to follow with a lag, with investment hopefully benefitting from both higher domestic spending and improving export demand.

Nevertheless, there are several downside risks to an investment pickup, including the lack of confidence in the strength of future demand growth, equity market declines, as well as the costs of external financing and high debt levels. Although lower interest rates have reduced the costs of external financing for highly rated companies, higher risk premia have pushed up the cost of external financing for lower rated firms. And with firms already carrying large debt levels, the declines in equity values have raised debt-equity ratios, limiting the firms’ ability to borrow. More recently, some observers have argued that the difficulties in obtaining external financing experienced by riskier borrowers is spreading to other parts of the credit markets, affecting higher-grade borrowers as well.

Declines in equity values not only limit the ability of firms to borrow, but also reduce the resources firms can dedicate to capital spending, as they may have to provide additional funding for employee pension plans. Specifically, recent declines have highlighted the risks associated with under-funded defined benefit pension obligations and their possible impact on credit ratings. In particular in those countries where a large number of companies have relied to a considerable extent on equity to back pension obligations, a funding gap may arise that depends in part on stock market moves. A similar vulnerability may exist in those countries where many companies fund their pensions through “book reserves”. With interest rates not expected to increase by much from current levels, assumptions regarding the expected long-term rate of return applied to pension plan assets need to be revised downwards. A key issue is to what extent the firms must bear the costs of the funding gap and how it feeds through to financial accounts. It is reported that some companies are already switching from defined benefit to defined contributions plans to reduce this vulnerability; however, the effects of this switch will take some time to be seen.

The real economy outlook and the health and condition of the financial sector are closely connected. For example, during periods of weak economic activity, this works in two ways. First, the recorded profitability of financial institutions tends to decline, loan portfolios deteriorate and capital market activity falls. Second, the direction of causality also runs the other way. As profitability of financial institutions declines and confidence wanes, financial institutions tend to seek higher compensations for risk-taking or even withdraw from such activity altogether. Rising risk aversion or a crisis of confidence can have pronounced adverse effects on the real economy especially when the capital base of financial institutions has been eroded.

II. Financial Institutions in a Bear Market

Commercial and investment banking

As a result of the recent downturn and several shocks such as corporate and sovereign defaults, the profitability cushions and surplus capital that had been built up in recent years in the banking sector may have partly eroded. Downward revisions of expectations for real economic activity, trading losses due to stock market drops, a sharp decline in revenues from capital market activities, deteriorating loan portfolios and a record number of corporate defaults all have added to pressures on profitability and capital. And some previously offsetting factors have ceased to provide relief, including bond issuance, which attained record levels during last year. As well, while banks in a number of countries adjusted deposit rates more quickly than loan rates as official rates fell, there will be fewer, if any, opportunities to do so, going forward.

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18. Banking sector share price indices have fallen since the beginning of the year in all major countries, but the relative performance as compared to broader stock market indices has differed across countries (Figure 1). In continental Europe, for example, some banking sector indices have underperformed somewhat compared to total market indices. Equity valuation pressures appear to be more pronounced in banking systems that are suffering from a combination of low profitability and rising bad loan provisions and are undergoing a consolidation and restructuring phase. The “classic” case of the latter is the Japanese banking sector, but recently, attention has focused on profitability in the German banking sector, which is under pressure as costs are not falling as fast as revenues. While changes in state guarantees are expected to improve market profitability over the medium term, the relatively weak German economy raises a question regarding credit quality. Similar vulnerabilities exist in other banking systems.

19. Equity valuation and rating pressures on individual banks seem to differ depending on the mix between wholesale and retail banking activities. Institutions with large and profitable retail operations have been under less (rating and) equity valuation pressures than banks with large wholesale and investment banking activities. The rating agencies have stressed that recent downgrades generally have been triggered by specific troubles at a limited number of banks rather than concerns about the sector as a whole, given generally strong capitalisation and the fact that exposure to corporate debt is widely spread among institutions. Nevertheless, credit losses are eroding overall market sentiment and could ultimately lead to higher funding costs for the sector as a whole.

20. While increased activity in trading of derivatives, especially of exchange-traded ones, provided some relief, recent stock and corporate bond market developments have hit investment banks particularly hard. The level of income from both primary and secondary market activities declined, while costs remained aligned with much higher income flow levels. As a result, many of these institutions have announced plans to extensively reduce the number of staff. While this would bring the cost base closer to revenues, excessive reductions could expose banks to higher operational risks and to the risk of lack of capacity should the market turn substantially. Investment banks in Europe and the United States are reported to be writing off record levels of credit losses. Some of these, it has been argued, reflect credits extended in the earlier boom period that might not have been properly priced and extended to debtors to attract investment banking business from the same clients.

21. Looking ahead, risks for banks would be associated with a further fall of stock prices and a drop in residential house prices in those countries where such prices are high. In this context, challenges arise where large corporate and/or household financial imbalances exist. Other risks would include a rise in oil prices or a deterioration of the situation in Latin America. Concerns regarding banks’ exposure to Brazilian debt seem to have ebbed slightly after the elections there, but some banks continue to be vulnerable to this risk through direct and indirect exposures.

Insurance and Reinsurance

22. The non-life insurance sector has been under particular pressure in recent years as a result of a large number of natural disasters and the September 11 terrorist attacks, as well as the decline in investment income from lower bond yields and falls in equity prices. Even during the financial market rally in the last week of October, insurance sectors, both in Europe and the United States saw their credit spreads rise. Recent declines in stock and bond markets, together with low interest rates on government bonds, have highlighted the vulnerability of the insurance sector associated with fixed annuity contracts. Under these contracts, a life insurance company agrees to provide a guaranteed lifetime income to the

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7 For a discussion of the situation of the insurance sector against the background of the various shocks see also "Tour d'Horizon on Market Developments: Terrorism Insurance Since the September 11 Attacks".
beneficiary from the point at which the annuity begins. During the earlier bull market environment
insurance companies sought aggressively to expand this line of business. The rates promised on these
annuities appear to have reflected a projected continuation of stock market gains and relatively higher
interest rates. In hindsight, not only were those assumptions too optimistic, but at the same time, the
longevity of policyholders seems to have been underestimated. The resulting mismatch between promised
high returns and declining yields on stocks and bonds has led to pressures on solvency of life-insurance
companies.

23. Reinsurance companies’ balance sheets and profitability have been substantially affected both on
the liability and the asset sides, especially in Europe (Figure 2), thus giving rise to solvency concerns. A
collapse of a major reinsurer could severely damage the capacity of reinsurance and insurance markets
through possible risk spirals and chain effects. So far, in spite of the magnitude of the payments associated
with the September 11 attacks, no major bankruptcies have occurred in the reinsurance industry. This is, in
part, because the risk was spread over several companies and countries and much of the reinsurance
business seems to have been written by reinsurers that were rated AA or higher. Nevertheless, as a result of
consolidation and specialisation in recent years, risk has become more concentrated in a smaller number of
major global reinsurers than in the past. It is difficult to assess exactly how the collapse of a major
reinsurer might spread throughout financial markets, given the lack of transparency regarding risk transfers
among reinsurers and the limited knowledge of the extent of retro-cession and retransfers of risk from
primary insurers. Markets may not have been overly concerned about the situation of the major reinsurers
throughout most of this year, as valuations of reinsurers’ stocks were broadly in line with those of broad
indices. More recently, however, reinsurance indices have dropped compared to broader indices on several
markets (Figure 3). Looking ahead, uncertainties associated with the external monitoring of the reinsurance
sector makes overreaction by counterparties more plausible, especially as reinsurers have continued to
expose themselves to highly correlated non-insurance risks like credit risk swap contracts or new capital
market products, the extent of which are highly uncertain.

24. Looking ahead, while underwriting premiums are on the rise, the operating environment remains
difficult for many insurers and reinsurers because of depressed investment income. To the extent that stock
market overvaluations have not yet been completely worked off, asset market returns in the near future are
likely to be well below those obtained the second half of the 1990s. As well, returns on government bonds
are not likely to rise much in the near term. The problems associated with an environment of low rates of
return are exemplified by the Japanese insurance industry. As interest rates moved lower over the 1990s,
Japanese insurance companies could not find sufficient long-term assets with which to match liabilities that
they had incurred earlier in the decade. The mismatch between high promised rates of return and the lower
prevailing rates of interest eventually undermined the solvency of many insurance companies. Although
this problem first appeared in Japan, there is some possibility that similar effects will be felt elsewhere as
benchmark interest rates approach very low levels and prices of lower rated debt fall. It should be noted
that some of these difficulties affect not only annuities, but other insurance products as well.

25. Against this backdrop, it is possible that some companies, especially those with solvency
concerns, will be forced to sell some of their equity investments in order to maintain regulatory solvency
levels, thus adding to downward pressures on share prices. Insurers and reinsurers have become major

8. The assessment of the financial health of reinsurers by markets and counterparties is complicated by the
lack of transparency of their risk positions and current exposures. To improve transparency in the insurance
market, OECD governments have recently decided that their regulatory and supervisory authorities will
exchange information deemed relevant for prudential reasons. Exchange of this information, provided
under conditions of confidentiality, will act as an early warning system for governmental authorities. For
more details see http://www.oecd.org/EN/document/0,,EN-document-14-nodirectorate-no-24-34910-
14,FF.html.
players in equity markets. During the 1990s, equity shares in total (non-life) insurance investments rose from 15 per cent to 25 per cent in the United States, and doubled in some European markets. On average, equity holdings in the European insurance sectors have been estimated to amount to almost 40 per cent of their total investments. Although reinsurers generally maintain conservative portfolios with an emphasis on bonds, the proportion invested in equity could be as high as about 20 per cent in some cases, according to some estimates. In Europe, insurers became the biggest investors in equity markets, alongside banks, holding more than 20 per cent of total European capitalisation. In some European countries, insurers can hold up to almost half of the domestic stock market capitalisation. As a result, changes in insurers’ equity investment strategies are bound to have significant effect on prices.

26. If insurers facing solvency concerns are part of larger groups, they may require further capital injections from parent companies. As well, it cannot be excluded that insurers or reinsurers with solvency concerns may become more tolerant vis-à-vis risk and change their portfolio composition towards higher-yield and higher-risk assets in an attempt to enhance their return-profiles (“gambling for redemption”). So far, the evidence for such behaviour appears to be limited.

(Risk) management issues

27. Recent developments have highlighted various challenges facing internationally active financial groups with operations in several financial sectors, including commercial and investment banking, insurance etc. A number of such groups have been formed during the last few years. In Europe, many banks now own insurance companies, particularly life insurance companies, given their role in the long-term savings market. However, it may turn out that the synergy effects from these mergers or acquisitions are not as high as previously thought. Difficulties in merging different institutions and corporate cultures may be substantial during bull markets; in bear markets, they could be even greater.

28. Risk management has made great strides in the sense that financial institutions are now much better equipped technically than in the past to measure various kinds of credit and market risks, and innovations have created new instruments for addressing them. Nevertheless, at least two related challenges have been identified in the literature on risk management. First, while the understanding of univariate risk has advanced rapidly, modelling of multivariate risk is at a much earlier stage. For example, standard models (assuming normality of the distribution of risk factors, such as interest rates, credit quality etc.) seem to underestimate the correlation of different risks during bear markets. As a result, the occurrence of unusually large adverse movements in different risk factors at the same time, tends to be underestimated, and the advantages of diversification overestimated. Second, risk management techniques may not yet have been adapted fully to the structure of financial groups. There seem to have been numerous practical problems in integrating risk management techniques, especially in complex financial institutions. Addressing risk management issues in a more integrated way is a rather recent phenomenon and this has occurred chiefly within individual financial institutions, not across institutions within a group. It has been argued that it is still an important challenge for management of financial groups to understand the risk profile of the group as a whole or in its entirety rather than its parts in isolation.

12. It has been argued recently that insurers may not have adequately used existing risk management techniques (see e.g. “German Insurers” in The Economist, November 16, 2002).
Figure 1a. Changes in relative performance* of banking sector in selected countries (since January 2002, as of 21-November)

- As measured against "Datastream total national market index" in corresponding countries.
- Source: Datastream

Figure 1b. Changes in relative performance* of banking sector in selected countries (since last meeting of the Insurance Committee, as of 21-November)

- As measured against "Datastream total national market index" in corresponding countries.
- Source: Datastream

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Figure 2a. Changes in relative performance* of different financial sectors
(since January 2002, as of 21-November)

*As measured against "Datastream total market index" in corresponding markets.
Source: Datastream

Figure 2b. Changes in relative performance* of different financial sectors
(since last meeting of the Insurance Committee, as of 21-November)

*As measured against "Datastream total market index" in corresponding markets.
Source: Datastream
Figure 3a. Relative performances* of banking and insurance sectors in the US (January 2002=100)

[Graph showing relative performances of banking and insurance sectors in the US from January 2002 to November 2002.]

Source: Datastream

*As measured against "Datastream total US market index."

Figure 3b. Relative performances* of banking and insurance sectors in Japan (April 2002=100)

[Graph showing relative performances of banking and insurance sectors in Japan from April 2002 to November 2002.]

Note: Data on Life-insurance sector is only available since 01-Apr-02. All indices are therefore set equal to 100 at 1 April 2002.

Source: Datastream

*As measured against "Datastream total Japanese market index."
Figure 3c. Relative performances* of banking and insurance sectors in European Union
(January 2002=100)

Source: Datastream

*As measured against "Datastream total EU market index."

Figure 3d. Relative performances* of banking and insurance sectors in Switzerland
(January 2002=100)

Source: Datastream

*As measured against "Datastream total Swiss market index."

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