Mr. Tosovsky gives the Czech Republic’s perspective of transition in Central and Eastern Europe Text of eighth Gerhard de Kock Memorial Lecture given by the Governor of the Czech National Bank, Mr. Josef Tosovsky, to an audience at the South African Reserve Bank in Pretoria on 17/2/97.

It is a great honour and pleasure for me to be invited to give the eighth Gerhard de Kock Memorial Lecture, especially as this is probably (if I am not mistaken) the first time that a governor from the reforming countries of Central and Eastern Europe has been afforded this privilege. The region of Central and Eastern Europe has undergone a profound re-shaping. More than 100 million people of Central and Eastern Europe got involved in a far-reaching process of political, economic and social change. Because of its unprecedented character and size the impact of this multidimensional transformation has been in continent-wide Europe. Indeed, the political and economic map of the whole of Europe is nowadays rather different from what it used to be throughout the postwar period till the 1990s.

Ladies and gentlemen, allow me to share with you some experience we have acquired. At the beginning of my lecture I cannot avoid briefly mentioning options for economic and political reforms as opened up for the countries of Central and Eastern Europe in the 1990s as well as the starting position of the former Czechoslovakia on the eve of the “velvet revolution” which in November 1989 enabled us to start a process of radical economic reforms.

Initial conditions for economic reforms

The task which confronted the countries after the fall of the communist regime was enormous. It involved radical change of the whole political, institutional, and economic system. Along with the rejection of the communist one-party rule, the principles of the past economic system, i.e. state ownership of the means of production and the central planning and management of the entire field of economic activity, being entirely discredited, were rejected too. The issue was thus substitution of the previous system and not its reform. The goal was a transition toward a democratic society - and toward a functioning market economy, based on the dominance of private ownership.

The respective move from the Communist centrally planned economy back towards a capitalist market economy implies a qualitative change in the entire economic and social regime. As such it is a unique process in modern economic development. The challenge is not only to stabilise, deregulate and liberalise the economy, as was the case in countries with extensive interventions such as Spain or Chile several years ago. The transition in Central and Eastern Europe required basic institutional, systemic as well as socio-political changes at the same time; it is inevitably a multidimensional process. It follows that, while stabilisation programmes and reforms in the other parts of the world economy may provide useful lessons from their experience, there are substantial differences implied both in the initial conditions and in the substance of the process. The implications of that fact should be remembered when assessing the course of changes in the previously centrally planned economies. The transition in Central and Eastern Europe is inevitably a much more complex and longer-term phenomenon, for which no generalised theory could be available to apply.

Such radical transformation requires a feasible strategy implemented with wide political support of the population. Transformation requires some minimum speed, and must start with some “critical mass” of change to secure sufficient impact on the behaviour of economic agents. In individual Central European post-communist countries, the sequence, speed,
and forms of individual steps necessarily differed; they had different starting conditions, different degrees of political support of the new governments, and they also applied different strategies.

The Czechoslovak case

At the start of transformation in 1990, Czechoslovakia had some economic advantages over the other Central and East European post-communist countries. In Czechoslovakia, during the preceding decade, state budgets were mostly balanced, foreign debt was low, and the balance of payments showed no big deficits or surpluses. Inflation was relatively low. Even if there was an inflationary potential (reflected not only in open inflation but also in the forms of hidden and repressed inflation) and the monetary overhang was increasing in the 1980s, its dimensions continued to be considerably lower than in the other countries of Central and Eastern Europe. Czechoslovakia, especially the Czech Republic, also had the advantage of a long industrial history, and of well-educated and skilled labour.

On the other hand, there were some disadvantages, especially if compared with Poland or Hungary. The system of a command economy was very pervasive in Czechoslovakia. There was practically no private sector; prices were centrally controlled; enterprise managers were operating within the limits of a rigid system of central planning, having little autonomy in decision-making. Market institutions were mostly lacking, particularly in the case of money, capital and labour markets. Czechoslovakia distinguished itself also as a country with an unfavourably biased size pattern of enterprises: big units, mostly administratively created, prevailed, while small enterprises were almost lacking. External economic ties were biased as well, being monopolised by the state: exports were predominantly aimed at Soviet and other communist countries’ markets. Especially high was the share of foreign trade with the Soviet Union (more than 40%). Connected with this was the fact that Czechoslovakia maintained a rather large proportion of heavy industries, an extensive but mostly obsolete stock of productive capital, along with underdeveloped services, neglected infrastructure and inadequate environmental protection.

In coping with the challenge of a system substitution the contraints and even the counterproductiveness of the partial reform approach seemed to be recognised and accounted for in the Czechoslovak case. This was perhaps a lesson learned from the failures of reform attempts in the past.

There appeared to be a widely shared consensus that a system replacement could hardly be achieved without a sufficient initial “shock”. Accordingly, the strategy followed aimed at a simultaneous implementation of the package of interrelated measures in order to secure sufficient impact on the behaviour of economic agents.

Given the above general consensus, there were, however, widely differentiated stances as regards the contents of the respective “minimum packages”, their sequencing and the speed of their implementation.

In previous discussions two alternative options - “fast” and “slow” movers - used to be identified as a shock therapy approach against a step-by-step, gradualistic or evolutionary type of approach.
The Czechoslovak scenario opted for a transition path which was implemented as quickly as feasible, implying some parallel features with the shock therapy approach, in particular with reference to one stroke, simultaneous liberalisation of domestic prices, foreign trade and foreign exchange, and the introduction of limited currency convertibility (on current account for registered domestic businesses) at the very beginning of the transition process.

The shock therapy approach was developed for the stabilisation programmes and followed in some countries of Latin America as well as in Poland and former Yugoslavia, where the dominant target of the economic policy was to cope with hyperinflation, to stabilise the economy as much and as fast as possible. The initial conditions in the CSFR differed, however, from those of the countries mentioned.

**Strategy of systemic and structural reforms**

The programme of political and economic transformation was formed during 1990, started in January 1991, and continued in the Czech Republic after the split of Czechoslovakia. From the start, the program included five main parts:

- Macroeconomic stabilisation policies: a restrictive fiscal and monetary policy to remove the monetary overhang and to reintroduce macroeconomic equilibrium.
- Liberalisation of prices: after 40 years of central price fixing, the bulk of prices were freed.
- Liberalisation of external trade - and introduction of partial convertibility (for resident firms’ current account transactions). That required initial devaluation toward an exchange rate seen as viable from the point of view of the balance of payments.
- Massive and rapid privatisation, including the use of the voucher scheme.
- Social safety net to protect people whose standard of living dropped below poverty line. These adverse impacts of economic transformation were to be contained within tolerable limits.

The programme aimed at re-establishing the role of prices and markets for an efficient allocation of resources. For the start, rationalisation of price relations implied a rise of the price level, owing to a monetary overhang, and to low downward price elasticity. In a small open economy, it made no sense to free internal prices without opening the economy to external competition and to world price relations. And, there could be no meaningful liberalisation of imports and exports without current account convertibility, introduced at least for resident firms.

The short Polish and Hungarian experience showed, however, that free trade and partial convertibility should not be attempted without a preceding macroeconomic stabilisation. The first year of transformation - 1990 - was practically devoted to the stabilisation goal; further transformation steps taken in 1991 were accompanied by continuing stabilising policy. Measures seeking external stability were an indispensable part of the programme. It was understood that the exchange rate would have to be undervalued in relation to purchasing power parity to sustain the liberalised trade and a partly convertible currency and to function as a stabilisation anchor.

Compared to steps such as freeing of prices, freeing of external trade, and introduction of partial convertibility, it was clear that privatisation would be a gradual, more time-consuming process. First, steps were taken to stop state subsidies to firms (as well as to prices), and to let the firms face a hard budget constraint; that included also a stricter credit policy by commercial banks. A shift of property rights to private hands was the only way how to
change fundamentally the behaviour of firms, expose them to the pressures of the market, and initiate productivity increase and structural change.

In 1989 the private sector was almost non-existent in the former Czechoslovakia, accounting just for 3 per cent of GDP. Domestic capital base was weak and institutions of market economy such as stock exchange and developed financial sector were lacking. Therefore, a combination of standard privatisation methods (that means sales, including sales to foreign investors) with non-standard ones was used to speed up the process. So called small privatisation (small factories, real estate, retail stores, restaurants, hotels, repair shops etc.) was proceeding swiftly since early 1991 and was more or less accomplished by the end of 1992. It went by auctions, but also restitution of property to its former owners played a very important part and contributed to the success of the programme.

In large privatisation (large state-owned enterprises), one part of the property was sold, another part was distributed free of charge to the entire population, through so-called investment vouchers. Standard methods such as direct sale, auctions, public tenders, and transfers of property to municipalities were used along with the voucher scheme. Foreign investors were, and are, welcome; in fact, the program of rapid and mass privatisation in the Czech Republic offered foreign investors an opportunity which will not be repeated in future.

Privatisation of an almost fully state-owned economy is a task which requires years rather than months. Now the bulk of privatisation has been accomplished, and it is starting to influence positively the performance of the economy. Within the last six years the share of private sector jumped from 3 to 75 per cent. But the problem of behaviour of the new owners, and of effective corporate governance, is still rather acute in the Czech Republic. Special problems are posed by the large ownership of equity by investment funds which emerged during the voucher privatisation, as well as by large banks which themselves are still partly in state hands. Thus, one cannot say that privatisation has been as yet accomplished fully. What remains, however, is a more standard situation, posing similar problems as privatisation of state-owned companies in the advanced market economies. As to the future prevailing model of corporate governance, the Czech Republic can be expected to converge toward the practice which will be most widely observed within the European Union countries.

**Macroeconomic stabilisation**

The transformation strategy required a constant effort to achieve macroeconomic stabilisation. Tight fiscal policy, based on a balanced or surplus state budget, and prudent monetary policy, were mutually supporting each other. These were supplemented by wage controls and overall income policy within the so-called heterodox concept of macroeconomic stabilisation.

During transformation, Czech monetary policy used two basic tools to fight inflation: targeting monetary aggregates, and the nominal anchor of a fixed exchange rate. The Czech experience with curbing inflation during a transformation period is successful, compared to other transforming economies of Central Europe. When, in January 1991, the bulk of prices in the Czech economy were freed after 40 years of central price fixing, the result was a yearly increase of the price level by almost 58%. However, no inflationary spiral evolved, and, since 1992, inflation showed a falling long-term trend towards a single digit rate in 1995-1996.
The initial jump of prices in 1991 was not accompanied by a similarly steep increase of nominal wages. Instead, real wages fell. That created some room for subsequent increases in real wages without serious inflationary consequences. In 1995 and 1996, however, the growth of real wages, which - if aggregated over all sectors - was faster than the increase in productivity, became one of the potential inflationary dangers.

The nominal anchor of the fixed exchange rate played an important role in the relatively good Czech results in fighting inflation. Instead of repeated smaller devaluations as in Poland or Hungary, the Czech Republic used a combination of a large initial devaluation and a subsequently fixed nominal exchange rate. In 1990 - before the start of the full transformation programme - the currency was devalued by more than 50%. That subsequently enabled us to keep the nominal exchange rate stable for five years. After the introduction of a wider 7.5% fluctuation band in 1996, the exchange rate is within the band.

Transformation involved so much fundamental change that its start inevitably led to an initial fall of output and GDP. However, part of the former higher output level was simply feeding the enormous waste which went on throughout the command economy. In 1993, GDP stagnated partly due to the split-up of Czechoslovakia. Economic growth was resumed in the Czech Republic in 1994 and continued in 1995 and 1996 as a fast growth period.

Unemployment has been kept low during the whole transformation period, thanks mainly to the rapid emergence of new private firms, and a large shift of labour into the previously underdeveloped service sector. Even with microeconomic restructuring going on, unemployment is not expected to exceed a 4% level in the near future.

Monetary policy tools

In a command type economy, monetary policy reflected state plans expressed mainly in physical terms. Planned direct credit allocation was linked to the planned growth of national income. Credits to enterprises were directly allocated, with little attention paid to the creditworthiness of the borrowing enterprise. Risk was socialised due to the existence of a unitary banking system.

The introduction of a new Central Bank Act and a new banking law in late 1989 marked the beginning of the development of a market-oriented banking system. The Act laid the basis for establishing a two-tier banking system through the separation of the central bank and commercial banking functions and provided the central bank with the means for conducting monetary policy and with regulatory authority over banks. The latter established the legal basis for a universal banking system. The separation of central banking from commercial banking was put into effect on January 1, 1990.

The dissolution of the Czechoslovak Federation into two independent republics on January 1, 1993, meant the creation of the Czech National Bank (CNB). According to the Act, the CNB is independent of any instructions given by the government. The CNB is obliged to submit to the Parliament a report on monetary development at least two times a year and to inform the general public on monetary development at least once every three months.

Further, under this Act the CNB has at its disposal practically all the tools known to advanced market economies.
At the beginning of the transformation process, the main tools of monetary policy were, quite naturally, direct ones. Credit limits, interest rate ceilings expressed as maximum deviations from the discount rate and refinancing loans (in 1991 represented for small, new banks on the average 60 per cent of total sources but for big banks 5-10 per cent only) were used.

Credit and interest rate ceilings were abolished in 1992 which can be regarded as a transition year towards indirect control of monetary developments. After credit ceilings on the minor banks were removed in April 1992 and on the major banks in October, central bank control of monetary developments was effected through discount rates, minimum reserve requirements, auction refinancing credits and central bank bills.

My predecessors behind this chair, the governors of the central banks from Germany and Switzerland, underlined the role of money supply targets in the kit of tools. In this respect the Czechoslovak and the Czech practice can enrich the experience.

Since 1990 the intermediate targets have been set in the form of planned changes in credits or money. For 1990 the target was “to keep the development of credits in total within the scope of -2 per cent to +1 per cent related to the level at the end of 1989”. In the following years the starting point for the monetary programme was the expected development of both real GDP and the inflation rate with the corrections for the envisaged changes in income velocity of money (in the Czech terminology the relevant aggregate M2 consists of currency and demand deposits, time and savings deposits and deposits in foreign currency). To be up-to-date, in 1997 we are targeting the increase of money supply by 8-12 per cent.

The philosophy behind money supply targeting is well known. Without a deep reflection upon this theme I recall the message of famous equation of exchange: Total monetary expenditures have to increase proportionally, if the velocity is constant, to nominally expressed GDP. Nothing more and nothing less is required from monetary policy. Monetary policy should serve one goal only: to repress high inflation and provide for a stable currency.

As a rule of thumb this reasoning is both understandable and acceptable but a more profound discussion must draw our attention to several points:

Neglecting at this moment the different versions of the equation of exchange what can we understand under the heading “total physical volume of transactions” on the right side of this equation? For the economies in transition the difference between the total volume of transactions and transactions counted in national income accounting is important. A part of the transactions is used for intermediate-good or inter-business expenditures and is not counted in the GDP accounts. Some transactions are not registered at all, for example, those in the underground economy, some imports and so forth.

The decomposition of nominal GDP into a change in real output and a change in the price level is not a trivial exercise even in advanced market economies. But in these countries, e.g. in Germany or USA, the prediction of real GDP rests on more solid grounds - one knows approximately what is the “potential output” as the starting point for some guessing as concerns the development in the medium term. In transition economies, in the period of deep structural changes, the estimate of both real GDP and potential output is much more difficult.
The traditional unidirectional link from money to income is blurred in advanced market economies by the existence of many forms of financial assets with different degrees of liquidity.

In transforming economies, the scope for reserve assets (Treasury bills) and investment assets (bonds, shares) is still limited but is widening step by step, thus weakening also the links between the money stock and expenditure flows. What is probably even more important, at least in the Czech Republic, is the financing of receivables and current liabilities through quasi-commercial credits (inter-enterprise indebtedness). There is a scope, created by enterprises themselves, for offsetting the potential effects of monetary stringency on spending plans. A version of the equation of exchange suitable for transforming economies should therefore take into account on the left side not only money in the narrow and broader sense but also estimates of different kinds of quasi-credit.

Textbook knowledge says that the constancy, or at least the predictability of velocity either in income or in transaction terms, turns the equation of exchange into the quantity theory of money. At this point, last year’s speaker, Dr Tietmeyer, had again a more favourable position, because he could rely on the predictable and the longer-term change in the income velocity of the German mark. In the Czech Republic the velocity is neither constant nor reliably predictable yet. In the first stage of economic transformation the income velocity declined in line with the increasing transaction demand for money. Only later on did velocity start to stabilise and recently we have observed some increase in velocity.

Last but not least, one must point out that, even in the quantity theory applied in advanced market economies, there is a certain “black box” connecting the quantity of money on the one hand and its effect on prices and quantities on the other. Between a change in monetary aggregates and offsetting changes in other variables, there is a transmission mechanism, with its specific features determined by the institutional framework in which it operates.

On the top of it some prices, like housing rents and energy price, are still under the control of the government and the process of deregulation cannot be perfectly anticipated due to the political implications.

To specify the transmission mechanism and to open the “black box” means both to describe and analyse the ways in which money is created and how it influences real variables. These ways change through the evolution of new institutions in transforming economies.

Besides money supply targeting, operative targets have been used.

As the operative target the monetary base (currency plus minimum reserves plus free reserves) was replaced in the second half of 1994 by bank reserves and a system was implemented for the daily prediction of liquidity management on the money market. Since then the monetary base has been used as an indicator.

In order to reduce the fluctuation of free reserves in the banking system and the volatility of interbank deposit market interest rates, the CNB shortened their maintenance cycle to 14 days commencing March 1st, 1994. Since then refinancing credits have been provided only when fully covered by securities (repo operations). This CNB shift to daily operational monetary policy management based on repo operations and the gradual strengthening of the role of these operations in the sterilisation of foreign capital inflows, particularly in the second half of 1995, led to the repo market’s gradual development.
As from the beginning of 1996 a one-week PRIBOR interest rate replaced bank reserves management as the operative target. The quantitative target has been replaced by an interest rate target with the aim to efficiently affect, on a daily basis, the interest rate level at the short end of the yield curve. This major change was facilitated by the gradual development of the money market and its cultivation by the CNB. The one-week PRIBOR rate is affected through sales of securities with a date specified in advance of their repurchase (repos) with one and two week maturities, for which a limited repo rate is announced.

New challenge: monetary aggregates in a small open economy

The monetary survey of the CNB indicates the structure of the money supply (M2) on the liabilities side (corresponding to the demand side) and its sources on the assets side (corresponding to the supply side). By comparing the assets and liabilities, one can reveal the different sources of the money supply.

The main sources of money supply growth are particularly dependent on the specific conditions of each economy, reflecting mainly the proportion of the influence of domestic and foreign sources of growth.

In general, the main sources of money supply growth include money issued in the form of credits granted by banks to both households and enterprises in domestic currency, the conversion of foreign exchange inflows into domestic currency (net foreign assets), net credit to the government and the net position of the National Property Fund and the residual called “other items net” (mainly own capital and bank reserves).

Developments in the period 1993-1996 reveal some interesting features:

Credits to enterprises and households in domestic currency, which are quite naturally the main source of money supply, exhibited a relatively slower growth up to the end of 1995, followed by a relatively quicker growth in 1996 when these credits became the main impetus of money supply growth.

The most remarkable feature was the growing share of net foreign assets up to December 1995 which resulted especially in 1993-1995 in the deviations of the dynamics of M2 out of the corridor laid down by monetary policy and which gave rise to the sterilisation efforts of the CNB.

The influence of net credit to the government plus the net position of the National Property Fund was negligible in the period under analysis, and in some periods it even dampened money supply growth. This fact is probably unique in the transforming countries of Central and Eastern Europe and reflects the prudent fiscal stance of Czech macroeconomic policy.

A more detailed answer to the causes of changes in the degree of impact of individual factors on money supply growth can be found when studying their development in different periods of the transformation.

In Czechoslovakia, during the first transformation years (1990-1992) money supply growth was based primarily on the relatively quickly increasing volume of credits granted to enterprises due to growing credit demand, which was very closely connected with the
liberalisation of entrepreneurial activities in a newly created market environment (an increasing number of businesses in need of initial capital).

Gradually, foreign money creation also expanded, affected by the development of an improving balance of payments, particularly the current account.

The gradual stabilisation of the macroeconomic and political environment (apparent mainly after the dissolution of the Czechoslovak Federation in January, 1993, and the relatively rapid calming of price developments following the introduction of a new tax system based on value added tax), the commencement of the activities of capital market institutions and the stability of the exchange rate which significantly decreased the risks for foreign investors, led in the second half of 1993 to a significant strengthening of the influence of the inflow of foreign funds into the Czech Republic on money supply growth.

The strong foreign capital inflows continued to influence money supply growth in 1994 and 1995 when capital inflows reached 18 per cent of GDP. This growth was particularly generated by increasing foreign direct investments, portfolio investments and relatively cheaper foreign credits drawn by domestic enterprises.

Because the increasing inflow of foreign money was accompanied by a continuous demand for credits on the part of enterprises (financed partially also from foreign resources), this situation called for the sterilisation of excess funds, taking into account the goals of monetary policy.

Paradoxically, due to the government’s sound fiscal policy, we were confronted with an insufficient amount of government securities, and therefore the CNB had to issue its own bills and sold them to commercial banks to weaken the impact on the volume of money stock.

A certain turnaround has occurred since the end of 1995. Contrary to previous years, the foreign sector helped to weaken money supply growth due to an increasing balance of trade deficit and the slower growth of foreign capital inflows into the country.

Exchange rate policy

The above-mentioned development of the composition of the monetary aggregates has influenced attitudes vis-à-vis exchange rate policy.

At the beginning of the transformation we were faced with the difficult choice of setting an appropriate exchange rate.

On the eve of the programme of price and trade liberalisation the government took the decision to use the exchange rate as a nominal anchor because in a small, open economy the domestic price level is heavily affected by the exchange rate.

Having taken into account various considerations in December 1990, we fixed the new exchange rate at 28 Czechoslovak crowns per US dollar, which then was about the middle ground between the parallel black market rate and the calculated cost of earning one dollar of foreign exchange.
Since then the Czech crown has been pegged firstly to a basket of the currencies of five major trading partners and since 1993, with a view to the development of the currency breakdown of foreign payments, to a two-currency basket (65 per cent Deutsche Mark and 35 per cent US dollar).

The improvement in macroeconomic stability and relatively high foreign exchange reserves created good starting conditions for the gradual extension of the Czech crown’s convertibility.

Some additional measures were taken in 1994 by means of an amendment in August 1994 to the Foreign Exchange Act. This amendment made it possible to export securities denominated in Czech currency; foreign exchange permits for direct investment outside the Czech Republic were provided to virtually all applicants and permit procedures for obtaining foreign exchange credits from abroad and for equity participation abroad were simplified.

Effective October 1, 1995 the Czech currency became convertible in accordance with Article VIII of the IMF Articles of Agreement, and the country became a member of the OECD. Under the new Foreign Exchange Act the current account of the balance of payments was liberalised and the regulation of the capital account was substantially reduced. Only the establishment of accounts abroad by residents, the outright purchase of securities by residents, the provision of financial credits to non-residents and real estate purchases by non-residents continue to be subject to regulation.

Textbook analysis (the Mundell-Fleming model for an open economy) demonstrates that a nation under a fixed nominal exchange rate system cannot pursue an independent monetary policy. Developments in the Czech Republic in 1993-1995 confirms this statement. The rapid increase in net foreign assets mentioned above had to be dampened by a smaller increase of domestic credits and in February 1996 gave rise to an important decision of the CNB’s Board.

The Bank’s Board widened the band for the fluctuations of the crown’s exchange rate from 0.5 per cent to 7.5 per cent, including the maintenance of a 0.25 per cent spread, i.e. the difference between the buying and selling rate used in transactions between the CNB and commercial banks at the foreign exchange fixing.

The CNB is prepared to intervene only in such a way that the exchange rate does not deviate from the announced fluctuation band. In January 1997 we witnessed an interesting and rather surprising development. In spite of the factors working in the medium run in the direction of depreciation (the higher inflation rate in the Czech Republic than in the countries of our major trading partners and the increasing trade deficit) the exchange rate as hovering around 4 per cent in the revaluation band! The explanation is given by the theory of asset demand - there is still a high demand for Czech crowns by foreign entities.

Inflation and monetary policy

Instead of using money supply target as an intermediary target, some countries (New Zealand, the United Kingdom and others) aim directly at inflation goals because no sufficiently reliable relation exists between any conceivable intermediate target and inflation.
This practice has not been adopted in the Czech Republic because in transforming economies the link between the money supply and the price level has some specific features.

Everybody agrees with Friedman that inflation is always and everywhere a monetary phenomenon. It means that over the longer term, a general rise in prices is not possible without an undue expansion of the money stock.

One of my predecessors in this series of lectures, the former President of the Swiss National Bank, Dr. Markus Lusser, declared in his memorial lecture in 1994 that in Switzerland the time lapse between the introduction of monetary policy measures and their impact on prices is two to three years.