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1. Introduction

The fall of the Berlin Wall in 1989 and the collapse of the Soviet Union in 1991 are the most important events of the late 20th century. Few observers foresaw these events. As late as in February 1989 fugitives trying to escape Eastern Germany were shot. In December 1990, when I was in Tallinn, Estonia, I discussed the situation in the Soviet Union with someone who had been correspondent in Moscow for a Swedish newspaper for over ten years. Thus, he knew the Soviet Union very well. Yet, he believed that the Baltics would not be able to secede from the Soviet Union, certainly not before the turn of the century. Only nine months later, however, this was exactly what happened after the failed coupe of August 1991. The Soviet Union collapsed and the Baltics regained their independence. This illustrates that predictions are very difficult to make even for those who are well informed.¹

In this paper I will not make predictions. However, I will not ignore the future either. I will focus on the current situation with regard to globalization from a historical perspective, while I will also look at possible future developments. The term globalization appeared in a dictionary for the first time in 1961, but the concept of globalization is not always clear (Rodrik, 2001). In the literature concepts of globalization can be found that sometimes seem fuzzy. According to Levitt (1993) a global corporation “operates (...) as if the entire world (or major regions of it) were a single entity; it sells the same things in the same way everywhere”. This seems to describe a problem of a number of US companies operating in foreign markets rather than to define the concept of globalization in a meaningful way. Some US companies try to sell products that were developed for the home market in foreign markets. This is a far different approach compared to many Japanese companies, which develop products for foreign markets and try to sell them in these markets. An example is the Lexus, a car that is widely sold in the US market.

Emotional feelings seem sometimes more important than facts and rational arguments. When interviewed demonstrators against globalization do not always appear able to provide a meaningful definition. At the G8 meetings in Genoa in July 2001 a variety of protest groups marched on the streets to protest against globalization. Protesters also voice their opinions on the Internet.² They seem to have some influence on official institutions as well as companies. The next G8 meeting will most likely be held in some remote place. World Bank development projects have been abandoned. Starbucks has promised to sell “fair trade” coffee beans in its coffee shops. Clothing importers in the USA settled after they had been sued over working conditions in the American commonwealth of Saipan in the Pacific. The Internet has proved an important tool in organizing protest groups, which seem to have globalized faster than their target enterprises. However, a crucial question is who elected them? The governments they fight are in the end accountable to voters, but who holds the protest groups accountable?

Globalization is sometimes used as synonymous to internationalization, which could be interpreted as increasing international interdependence. Globalization is also defined as a

¹ According to Rodrik (2001) economists rank second to astrologers in their predictive abilities.

² One example is www.destroyimf.org advertising itself as “a web resource for all those mobilising to end the poverty and injustice inflicted by global capitalism”. As the spelling suggests the movement seems to be organized by European activists.

development towards relations acquiring relatively distanceless and borderless qualities (Scholte, 1997). I interpret globalization as economic integration of countries in the world economy on the basis of open markets and free movement of goods, services, workers, and capital. This implies that products are sold across countries irrespective of distances and borders between the various outlets. Global products comprise a wide range of products including food (e.g., Kellogg's cereals), beverages (e.g., Coca-Cola), stimulants (e.g., Marlboro cigarettes), clothes (e.g., Levi's jeans), pharmaceuticals (e.g., Bayer aspirin), music recordings (e.g., Madonna), office equipment (e.g., Xerox copiers), transport vehicles (e.g., Ford), and travel services (e.g., Holiday Inn). However, this is a qualitative characterization rather than a quantitative and precise account of global products. The role of governments is limited with regard to this concept of globalization.

Market principles have gained popularity in the last decades of the 20th century. In western countries this occurred in the 1980s. Leading politicians including President Reagan in the USA and prime minister Thatcher in the UK heavily emphasized the market as the organizing principle. Privatization became a key word. In the 1990s, market principles also gained popularity in developing countries and former communist countries. After the collapse of the Soviet Union and the end of the Cold War profound changes occurred in Central and Eastern European societies. A major shift from principles of planning and control to market principles could be observed. The omnipresent fist of the centrally planned economy was replaced with the invisible hand of the market economy in a relatively short period of time. The economic consequences of these upheavals proved to be very large. In the 1990s, GDP in Central and Eastern European countries fell dramatically. In 2000, real GDP in the Commonwealth of Independent States (CIS) - the former Soviet republics except the three Baltic states - amounted to 55 per cent of its 1989 level. In the former East bloc - Central and Eastern Europe, the Baltics and the CIS - this figure amounted to 68 per cent (EBRD, 2000). Given the notorious allocative inefficiency of the centrally planned economies in Central and Eastern Europe, however, a fall of real GDP is not identical to a decline in the standard of living. A decrease of the production of weapons and barbed wire does not necessarily reduce the welfare of individuals. Nonetheless, the transition from centrally planned to market economies has proved to be painful.

2. Globalization over time

Over time the world economy has greatly benefited from globalization. Economic theory explains that mutual gains can result from international trade if there are comparative advantages in the production of goods between nations. Dutch experience from 1850 to the end of the Napoleonic wars provides a dramatic demonstration of the way in which Western Europe interacted with the world economy in that epoch. In the mid-18th century Britain removed all trade and tariff restrictions unilaterally. In 1860 it had concluded reciprocal treaties for freer trade with France and other European countries, which had most-favored nation clauses (Maddison, 2001). Historically, the first half of the 20th century was an interruption of the move towards free trade. World War I shattered the old liberal order and international trade collapsed. This was a result of increasing protectionism during the Great Depression and the beggar-thy-neighbor policies. Only after World War II the move towards free trade resumed giving rise to a sustained period of high economic growth.

Table 1 shows annual growth rates of GDP for different periods and regions. It reveals interesting developments. First, economic growth was indeed relatively high in 1950-1973 in most regions and thus also in the world. Second, in the last two centuries economic growth was typically higher in the USA compared to Western Europe, but the reverse was true in 1950-1973. Third, economic growth in Eastern Europe was typically in line with that in

Western Europe with the exception of the period 1973-1990, when Eastern Europe lagged behind. Fourth, economic growth in Japan was exceptionally high in 1950-1973, when the Japanese economy grew two times as fast as the economies in the western world. Fifth, in the 19th century economic growth in Africa exceed that in Asia, but lagged behind with the western world. In the first half of the 20th century, however, economic growth in Africa was considerably higher than in Western Europe and at the same level as in the USA. In 1950-1973 economic growth in Africa was comparable to that in the western world. In this period African growth exceeded somewhat economic growth in the USA, while it was only a little bit lower than in Europe. Sixth, economic growth in Asia was the lowest in the world until the mid-20th century. Until 1950 the annual growth rate was lower than 1 per cent, but in the post-war period it was over 5 per cent.

Table. 1. Average Annual GDP Growth Rates, 1820-1998.

	1820-70	1870-1913	1913-50	1950-73	1973-98
Western Europe	1.65	2.10	1.19	4.81	2.11
Eastern Europe	1.36	2.31	1.14	4.86	0.73
USA	4.20	3.94	2.84	3.93	2.99
Latin America	1.37	3.48	3.43	5.33	3.02
Japan	0.41	2.44	2.21	9.29	2.97
Asia (excl. Japan)	0.03	0.94	0.90	5.18	5.46
Africa	0.52	1.40	2.69	4.45	2.74
World	0.93	2.11	1.85	4.91	3.01

Source: Maddison (2001).

Globalization is not a new phenomenon. On the contrary, it already occurred centuries ago. Mussa (2000) points out that the extent of global economic integration through international trade today is, by some key measures, not much greater than it was a century ago. Around 1900, however, roughly two-thirds of GDP was in the goods producing sector of the typical industrial country. Now that situation is reversed, and roughly two-thirds of GDP is in the service sector of the typical industrial country. If trade shares are measured as ratios of international trade of goods to the output of goods production, then those shares are soon to have increased significantly from a century ago. Therefore, Mussa (2000) stresses that this supports the view that international integration of markets for goods is significantly greater today than a century ago.

The globalization process seems to have stagnated in the first half of the 20th century. Table 2 shows that exports decreased relative to GDP in the most important industrialized countries (plus the Netherlands) in the first half of the 20th century. Exports rose in the second half of the 20th century. The increase in the post-war period was much larger, however, than the decrease between the two World Wars. In terms of exports the globalization process thus flourished in the second half of the 20th century after a period of contraction in the first half of that century. Given the data in Tables 1 and 2 Williamson (1997) seems correct in his characterization of the different periods. He speaks of the late 19th century belle époque, the dark middle years between 1914 and 1950, and the late 20th century renaissance. The first and last epochs were characterized by rapid growth; economic convergence as poor countries caught up with rich ones; and globalization, marked by trade booms, mass migrations, and huge capital flows. The period 1913-1950 is associated with slow growth, a retreat from globalization, and economic divergence.

Table 2. Exports as a percentage of GDP, 1913-1998.

	1913	1929	1950	1973	1998
USA	3.7	3.6	3.0	4.9	10.1
Japan	2.4	3.5	2.2	7.7	13.4
France	7.8	8.6	7.6	15.2	28.7
Germany	16.1	12.8	6.2	23.8	38.9
UK	17.5	13.3	11.3	14.0	25.0
Netherlands	17.3	17.2	12.2	40.7	61.2
World	7.9	9.0	5.5	10.5	17.2

Source: Maddison (2001).

History offers thus an unambiguous positive correlation between globalization and convergence. Williamson's detailed analysis of the pre-World War I years leads him to the conclusion that the correlation seems to be causal. He concludes that globalization was *the* critical factor promoting economic convergence (Williamson, 1996).

Before the collapse of the Soviet Union Central and Eastern European countries formed an almost closed trading bloc. Trade within the Council for Mutual Economic Assistance (CMEA) dominated their international trade relations and only a small share of trade was conducted with the rest of the world. In particular the Soviet Union was a closed economy with a share of trade with other CMEA countries of 90 per cent (EBRD, 1999). Exports of Eastern Europe and the former Soviet Union were not significant. In 1913, the region's share in world exports was nearly the same as its share in the world population. Its share in the world population steadily declined, whereas its share in world exports initially increased. Seven years after the collapse of the Soviet Union, however, its share in world exports was at the same level as in 1913. Thus, the relative importance of Eastern Europe and the former Soviet Union in terms of exports was equally small at the end and in the beginning of the 20th century.

Table 3. Share of Eastern Europe's exports and population in world total, 1913-1998.

	1913	1950	1973	1998
Exports	4.1	5.0	7.5	4.1
Population	4.4	3.5	2.8	2.0

Source: Madison, 2001.

Seven years after the collapse of the Soviet Union and the CMEA the CIS countries were still to a large extent dependent on trade links with other transition countries, in particular Russia. Yet, the liberalization of external trade in the early 1990s led to a reallocation of trade flows away from the CMEA towards the European Union. This holds in particular for Estonia, the Czech Republic and Hungary, where exports to the European Union stood at some 50 per cent of GDP (EBRD, 2001). Trade with the rest of the world also increased, but by much less. Therefore, regionalization seems to reflect developments in Central and Eastern Europe after the collapse of the Soviet Union more accurately than globalization.

Regionalization seems a growing trend. As of mid-2000 114 regional trade agreements were in effect and virtually all WTO-members are partners in at least one regional trade agreement. In the western hemisphere, the North American Free Trade Association links Canada, Mexico, and the USA. In Europe, the European Union is linked by bilateral free-trade agreements to the countries in Central and Eastern Europe. A number of recent regional trade agreements in Europe and Central Asia concern the integration of countries of the former Soviet Union as well as with their neighbors. Both in Central and Latin America and in Asia the pace of conclusion of regional trade agreements continues to be rapid. Also in Africa and the

Middle East regional trade agreements are growing (WTO, 2001). This growing trend of regionalization may give rise to a tripolar view of the world, with the USA, Japan and the European Union being the three poles. However, trade groupings are not always stable in the long run. The system of British Commonwealth Preferences and the COMECON, for example, have collapsed, while some regional trade groupings in Africa and the Caribbean have collapsed or merged with others (Lloyd, 1992). Moreover, the European Union is the only region where the share of intra-regional merchandise trade exceeds 50 per cent. Thus, with a share of intra-regional trade of 69 per cent trade among European Union member states trade within the European Union is more important than trade between the European Union and the rest of the world. In Asia the share of intra-regional trade amounts to 47 per cent and in North America 40 per cent (WTO 2000). Asia and North America are thus to a lesser extent closed economies than the European Union.

3. Scenarios for further globalization

One may look into the future without making any predictions by describing how developments in future could be. This is the scenario approach. The Central Planning Bureau (1999) has identified four scenarios that address the globalization process in various ways. For that purpose it has used WorldScan, an applied general equilibrium model for the world economy focusing on economic growth in the long run and trade patterns between 12 regions.³

The first scenario identified is the *Schumpeterian World*, which is optimistic on economic progress and developing regions. It emphasizes globalization tendencies and market-oriented policies in the world economy. It is based on the idea that when developing countries grow fast the linkages between OECD and non-OECD countries intensify. OECD countries specialize relatively more in high-skilled labor-intensive goods such as capital goods and services, whereas non-OECD countries specialize in consumer goods that are low-skilled labor intensive. Rapid development outside the OECD area and complete liberalization of goods and capital markets produce closer economic integration of rich and poor countries. The non-OECD share in world production increases from 23 per cent in 1995 to 42 per cent in 2020, while the ratio of trade to GDP nearly doubles. Liberalization of goods, services and capital allows countries to specialize, exploit economies of scale, and create competition. Moreover, open markets encourage dissemination of modern technologies in developing regions. Technology is particularly important for transition countries to help restructure their inefficient production processes inherited from the communist past.

The second scenario is the *Malthusian* scenario. It assumes that developing regions are unable to pursue market- and outward-oriented policies. The political situation is unstable and leads to an inward-looking attitude. The lack of trade liberalization and neglect of infrastructure and education hurts economic growth substantially in these regions. In this scenario, people in developing regions tend to migrate to the OECD area and the trend towards globalization is reversed. Despite the unfavorable market circumstances in non-OECD countries their growth rates exceed those in the OECD area. This reflects the enormous potential of these countries. However, the non-OECD share in world production shows only a modest increase to 28 per cent in 2020. The trade restrictions imposed by non-OECD countries hamper trade significantly and the ratio of trade to GDP lowers in these countries. Japan and Western Europe reinforce their positions in the production of intermediate goods, while all OECD countries can maintain their position in the production of consumer goods. Most developing

³ These regions are the USA, Western Europe, Japan, Rest of the OECD, Eastern Europe, Former Soviet Union, Middle East and North Africa, Sub-Saharan Africa, Latin America, China, South East Asia, and South Asia & Rest.

regions lose the opportunities to export agricultural goods to the OECD. China shifts to the production of consumer goods, because it faces less competition from its Asian neighbors.

The third scenario that the Central Planning Bureau (1999) identifies is the *Developing* scenario, which is less rosy than the first two scenarios. Growth perspectives for OECD countries are bleak, while non-OECD countries grow fast at high environmental costs. The lack of flexibility on the labor and product markets within the OECD keeps unemployment levels high and economic crises inside the OECD strengthen protectionist sentiments. Disagreement on free trade issues on agriculture and services between the USA, the European Union and Japan withholds all globalization tendencies in the OECD. Producers reduce investment, curb research and development, and technological progress slows down. The developing countries do not face these problems. They really catch up with the developed countries. Their policies are outward oriented and they go further in opening up and strengthening their markets, thereby creating their own trade blocs. They invest in infrastructure and education and copy at a fast pace technologies from the OECD countries. The non-OECD share in world production doubles to nearly 50 per cent. As in the Schumpeterian scenario, the transition countries have to rely on technical progress, which pushes up economic growth substantially. The other regions also benefit from the increase in labor productivity by schooling and labor reallocation.

The fourth scenario is the *Ecological* scenario, in which producers and consumers value environmental quality and put less emphasis on economic growth. People value the consumption of local products of their own culture. Globalization is thus not important in this respect and there are few incentives to eliminate trade barriers. The main reason for low economic growth is the lack of technological progress. The trade to GDP ratio hardly increases in the OECD area and remains constant in the non-OECD countries. Most of the production continues to occur in the OECD area and the shift to non-OECD regions is modest. The Ecological scenario differs from the other scenarios in that the rise in demand for energy is very modest. As a result, the total emissions of CO₂ are about 40 per cent lower than in the Developing scenario. Emissions in the OECD area do not even increase. The OECD and transition countries agree to reduce the emissions according to the Kyoto protocol, while the non-OECD countries limit the growth of energy demand by energy-efficiency improvements in production and a reduction in consumer demand. Curbed demand for energy hurts the energy-exporting regions. The share of energy in total exports by the Middle East and North Africa, Sub-Saharan Africa and the former Soviet Union declines significantly. They diversify their exports to capital goods, services, and intermediate goods. The traditional exporters of agricultural goods, the USA and the Rest of the OECD, improve their positions in this sector in response to the partial trade liberalization. Asian regions now dominate the market for consumer goods. They specialize in these goods because of the relative abundant supply of low-skilled labor. The shift in the export mix is possible due to a shift of low-skilled labor from agriculture to consumer goods. The former Soviet Union is the biggest loser in this sector and its export share vanishes.

The outcomes of the scenarios differ because different assumptions underlie the driving forces. Table 4 compares a selection of the exogenous trends and variables that the Central Planning Bureau (1999) has assumed. Technical progress is one of the most important driving forces for economic growth. If its pace is high, economies grow fast, like in the Schumpeterian and the Developing scenarios for the non-OECD countries. Most scenarios combine economic growth with increased international linkages and, consequently, trade liberalization. Tariff reductions in agriculture and raw materials are limited to 50 per cent at the most, because these levels are very high for some regions and much less progress has so far been made in lowering these barriers. Even in the Ecological scenario some trade liberalization occurs because regions are willing to cooperate in the field of environmental policy. Since in this scenario they are less interested in globalization, however, trade liberalization

remains limited. The Schumpeterian scenario also features increasing capital market integration, while the extent of competition is assumed to be larger than in the other scenarios. In all scenarios with high economic growth sustainable production is only possible if energy-efficient technologies are introduced. Therefore, OECD countries save 0.5 per cent annually on energy per unit of production in the Schumpeterian and Malthusian scenarios. Non-OECD countries even save 1.0 per cent in the Schumpeterian scenario. In the Ecological scenario the environmental awareness of non-OECD countries is much higher. As a result, the energy saving amounts to 2 per cent per year with much lower dissemination of technology from the OECD countries. OECD countries save less in the Ecological scenario because technical progress is slow, which makes it more difficult to implement energy-saving technologies. The reduction in energy demand is realized by introducing energy taxes that the OECD countries impose according to the Kyoto protocol. They even agree to reduce the emissions further by 1 per cent per year after 2010. In the Ecological scenario industrial and transition countries can trade in emission rights in order to realize the emission targets. The other non-OECD countries do not participate because the OECD and transition countries are mainly responsible for the abatement.

Table 4. Exogenous trends in the scenarios until 2020 (in %).

Scenario Region	Schumpeterian		Malthusian		Developing		Ecological	
	O ^a	N ^a	O	N	O	N	O	N
Technical progress (annual)	1.5	2.0	1.2	0.7	0.6	2.0	0.6	0.9
Trade liberalization in manu- facturing and services	100	100	100	0	0	100	50	50
Trade liberalization in raw ma- terials and agriculture	50	50	50	0	0	50	25	25
Capital market integration	Increasing		stable		stable		stable	
Degree of competition	High		standard		standard		standard	
Energy efficiency	0.5	1.0	0.5	0.0	0.0	0.0	0.0	2.0

a. O = OECD; N = non-OECD.

Source: Central Planning Bureau (1999).

The use of different exogenous trends used in the various scenarios implies a wide variation in the results. Rapid technological progress raises economic growth, as is the case in the Schumpeterian and the Developing scenarios for the non-OECD countries. Table 5 shows that in high-growth scenarios GDP growth per capita is about 2 per cent in OECD countries and 6 per cent in non-OECD regions. High economic growth leads to high savings rates. Savings rates in the OECD area are generally lower than in non-OECD regions. High GDP growth also changes consumption patterns. Consumers in OECD countries spend relatively more on services. The share of food in total consumption in OECD regions is already low in 1995 (10 per cent). Therefore, the differences in the shares of food consumption in the different scenarios are small within the OECD area and range from 6.5 to 7.7 per cent. In non-OECD regions, however, these differences are considerably larger. The share of food consumption drastically declines from 26 per cent in 1995 to 12.6 or 16.7 per cent in 2020 depending on GDP growth in the scenarios. The share of consumption of services increases from 54 per cent in 1995 to 64.8 or 70.6 per cent in 2020.

Table 5. Summary of scenario results until 2020.

Scenario Region	Schumpeterian		Malthusian		Developing		Ecological		
	O ^a	N ^a	O	N	O	N	O	N	
	Average annual growth between 1995 and 2020								
GDP	2.6	6.2	2.6	3.6	1.2	5.9	1.2	4.0	
GDP per capita	2.2	4.7	1.7	2.2	0.8	4.4	0.9	2.5	
Real producer prices energy	1.5	0.3	0.7	0.2	1.6	- 0.1	0.7	0.0	
Emissions	0.8	3.6	1.1	2.8	0.3	4.6	0.0	1.4	
	Ratios in 2020								
Labor reallocation as % of labor supply		19.1		7.9		18.1		14.5	
Savings rate	17.8	23.5	17.9	16.6	14.7	24.4	14.9	18.9	
Spending on services	77.9	70.6	77.2	65.2	75.7	68.6	75.6	64.8	
Spending on agriculture	6.5	12.6	7.1	17.0	7.6	13.4	7.7	16.7	
Trade to GDP	22.9	43.6	12.5	22.6	15.0	25.5	14.6	24.7	

a. O = OECD; N = non-OECD.

Source: Central Planning Bureau (1999).

Trade only flourishes if all countries reduce their trade barriers. Since OECD countries are endowed with high-skilled labor and capital and non-OECD countries are endowed with low-skilled labor, specialization will increase if trade barriers between these regions are reduced or eliminated. This occurs in the Schumpeterian scenario. OECD countries have similar endowments of high-skilled labor and capital, while non-OECD countries have similar endowments of low-skilled labor. Specialization *within* the OECD and non-OECD regions will thus be less pronounced than *between* OECD and non-OECD countries given the level of aggregation in the model. Therefore, the trade to GDP ratios are fairly low in the Malthusian and Developing and also the Ecological scenarios. The high trade to GDP ratio in the Schumpeterian scenario depends on trade liberalization and the degree of international competition.

High economic growth harms the environment. In the Schumpeterian and Malthusian scenarios emissions grow substantially but do not accelerate, due to energy-saving technologies. In the Ecological scenario demand for energy is stable due to strict environmental legislation in the OECD area. As a result, the global increase in CO₂ emissions is about 20 per cent, which seems very modest given the economic development in non-OECD regions. Moreover, at the end of the scenario period emissions do not increase at all. In the Developing scenario growth of emissions does accelerate due to rapid growth in developing regions, which ignore environmental quality. As a result, emissions double in the scenario period. If energy growth is not allowed for at all, economic growth has to be low - as in the Ecological scenario - or a more strict environmental legislation is necessary. The differences in emission growth in the non-ecological scenarios are not very pronounced. In these scenarios emissions grow substantially. Whether this growth is sustainable or not is hard to say. First, the quantitative effects of pollution on the environment are unclear. Second, simulation paths of 25 years are relatively short to analyze emission paths.

4. Summary

Globalization is not a new phenomenon, but already occurred centuries ago. The first half of the 20th century seems an interruption of the move towards free trade. After World War II, however, the move to free trade resumed and gave rise to a sustained period of high economic growth in most parts of the world. Central and Eastern Europe was an exception because this region formed an almost closed trading bloc. Though CIS countries are still to a large extent

dependent on Russia, liberalization of external trade in the early 1990s led to a reallocation of trade flows away from Central and Eastern Europe towards the European Union.

The Central Planning Bureau (1999) has explored possible future developments by applying a general equilibrium model for the world economy. It has identified four scenarios:

1. The Schumpeterian World, a scenario that is optimistic on economic progress and developing regions emphasizing globalization tendencies and market-oriented policies in the world economy.
2. The Malthusian scenario, which assumes that developing regions are unable to pursue market- and outward-oriented policies.
3. The Developing scenario assuming bleak growth perspectives for the OECD area, but high growth in non-OECD countries at high environmental costs.
4. The Ecological scenario, in which producers and consumers value environmental quality and put less emphasis on economic growth.

Because of the differences in underlying assumptions the scenarios produce different outcomes. The results are not predictions, but descriptions of possible future developments on the basis of an applied general equilibrium model of the world economy and various exogenous trends that have been assumed. There seems considerable scope for CIS countries to integrate in the world economy. Continued globalization may further economic growth, while high economic growth harms the environment. However, energy-saving technologies and environmental legislation may affect the outcomes.

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