Renata Knap*

POPULATION AGING AND POLAND'S INTERNATIONAL INVESTMENT POSITION

Abstract

The objective of the paper is to attempt to evaluate the impact of population aging on Poland's international investment position within the next fifty years. In order to achieve the objective, literature studies were conducted along with a comparative analysis of the measurements of the aging populations in Poland and in other countries and logical deduction was employed. The study results demonstrate that the forecasted high degree of Poland's population aging in the period of 2020–2065 will result in an increased demand for foreign capital, an increased negative international net investment position as well as unfavourable changes in the structure of foreign liabilities. The influx of foreign capital induced by population aging may not translate into the expected maintenance/increase of the pace of economic growth, while a substantial negative international net investment position may become a barrier to growth in the subsequent periods.

Keywords: population aging, international capital flows, international investment position, Poland
JEL Classification: F21, F43, J11

1. Introdution

The process of population aging is of universal and asymmetric nature. It concerns all countries and regions, but the degree of its progress and the pace of population aging differ in individual countries and regions of the world. That diversification is recognised in literature of the subject as a significant factor that determines the scale and directions of international capital flow, thereby the changes in the countries' balance of foreign assets and liabilities, i.e. their international investment position.

All the available forecasts of the demographic changes in Poland indicate that within the next five decades the pace of aging of the Polish population will accelerate significantly. The economic results of the forecasted progress of the process in the incoming decades constitute the focus of multiple analyses and discussions presented in the Polish literature on the subject. However, researchers concentrate on internal determinants, frequently in separation from the international aspects of the results of the demographic changes resulting from the openness of Polish economy and globalization processes.

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The objective of the paper constitutes an attempt at evaluating the impact of population aging on Poland's international investment position in the incoming five decades.

In order to achieve that objective, literature studies were conducted, which enabled identifying the channel and directions of the impact of population aging on the international investment position in theoretical terms and in empirical studies. The progress and pace of Poland's population aging in relation to other countries were defined with the use of a comparative analysis of secondary data, such as life expectancy, population growth rate, age ratio, age index, median age, population age structure, demographic dependency ratio. The results obtained in the analyses of demographic trends in Poland in relation to the demographic changes in other countries were used to define, using the method of logical deduction, the directions in which population aging impacts on Poland's international investment position.

Statistical material was obtained from the data bases of the UN, the World Bank, the National Bank of Poland and the Central Statistical Office. The research concerns the period of 1950–2065, therefore it encompasses the analysis of the actual development of the studied phenomena in the years of 1950–2015 as well as a forecast of their development until 2065.

2. Theoretical concept of population aging as a determinant of international investment position

International investment position (IIP) is a statistical statement at a given moment in time of foreign financial assets held by residents (receivables from non-residents and monetary gold) as well as of foreign financial liabilities possessed by residents (residents' liabilities to non-residents). The difference between the value of financial foreign assets and liabilities constitutes net international investment position (NIIP) (IMF 2009, p. 119).

IIP reflects an accumulated value of capital flows (financial transactions registered in the balance of payments) made between a given country and the other countries of the world, adjusted for the changes of the value of foreign assets and liabilities not resulting from the conducted transactions (the ones unregistered in the balance of payments). The changes in the balance of foreign receivables and liabilities are thus a result of the influence of two factors: financial transactions (capital flows) between national and foreign entities as well as other changes (not resulting from the

transactions) occurring in a given reporting period (IMF 2009, p. 120). Transactions and other changes may therefore be recognized as two separate channels through which population aging impacts on the IIP (cf. Fig 1).

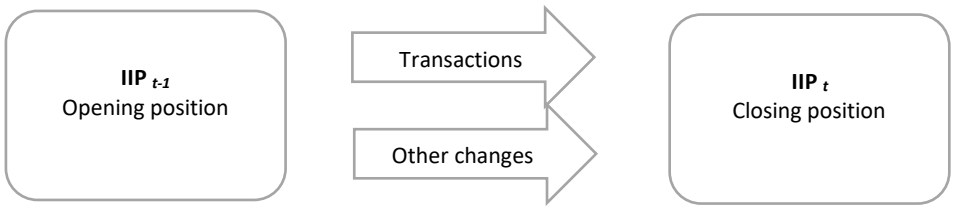


Fig. 1. IIP change factors in *t* reporting period

Source: own elaboration based on (IMF 2009).

In the literature of the subject changes in the international capital flows (the transactions channel) caused by population aging processes are recognized as the basic channel in which population aging affects the IIP. It occurs through changes in national savings and investments (Fig.1).

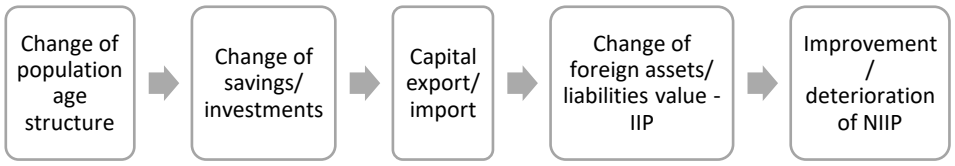


Fig. 2. The process of population aging transmission on the IIP – "transaction" channel

Source: own elaboration.

The theoretical grounds of the research presented in the literature concerning the impact of population aging on international capital flows and on IIP originate from a life cycle hypothesis formulated by F. Modigliani, R. Brumberg and A. K. Ando (Bárány, Coeurdacier and Guibaud 2016, Gudmundsson and Zoega 2014, Bryant 2006, Börsch-Supan 2004, Higgins 1998). In accordance with that hypothesis, individuals strive to maintain their consumption level at a relatively constant level throughout their entire lifetime. Since income level changes over a life cycle (it increases during the entire period of professional activity until retirement), consumers use the mechanism of borrowing and saving in order to even out the consumption level. Young people typically obtain lower income than their desired consumption level, therefore they do not save, but they contract loans. Middle-aged people obtain higher income, repay the loans and accumulate savings in order to maintain the achieved consumption level

during their retirement period, which features a decrease of income. Elderly people at post-working age finance consumption from the life savings they accumulated. Hence, the hypothesis of a life cycle assumes negative (or very small) savings at a young age, positive savings at one's middle age and negative saving at one's old age (Ando and Modigliani 1963, Modigliani and Brumberg 1954).

The hypothesis of a life cycle is also adopted in explaining the impact of population aging on investment needs (Lane and Feretti 2001). In line with this approach, young populations feature the greatest demand for investments (jobs creation, satisfying educational, housing needs, etc.). In older populations with a substantial percentage of individuals at post-working age the demand for investment capital drops (decrease of work resources supply, shifts in demand structure from more capital-intensive goods to less capital-intensive ones, etc.).

Therefore, changes in the age structure of a society determine the amount of savings and investments aggregated in the economy[1]. Depending on how advanced the aging process is a country shows either a deficit or a surplus of savings in relations to its current investment needs. In the countries that are at an early stage of demographic changes, featuring a relatively large percentage of young people, a deficit of national savings is observed and they are usually net capital importers from countries with older populations (they record an increase of foreign liabilities and a deterioration of/a negative NIIP). The countries in which population aging process is more advanced, in which the share of prime savers is on the rise, demonstrate a growth of savings in relation to investment needs and they export capital to younger economies (they record an increase of foreign assets and an improvement of/a positive NIIP). In demographically old countries with a relatively large percentage of population at the post-working age, the scale of a decline in the level of savings is typically greater than that of investment demand, furthermore, the demand for foreign capital grows (there is an increase of foreign liabilities and a deterioration of/a negative NIIP) (World Bank 2016).

The presented theoretical interpretations of the influence exerted by the process of population aging on international capital flows and on IIP have been confirmed in numerous empirical studies (Bárány, Coeurdacier and Guibaud 2016, Gudmundsson and Zoega 2014, Bryant 2006, Domeij and Floden 2006, Chinn and Prasad 2003,

[1] From research it arises that this regularity refers not only to household savings, but also to corporate and public ones (Chawla 2007, pp. 119-123).

Lührmann 2003, Börsch-Supan, Ludwig and Winter 2001, Attanasio and Violante 2000, Higgins 1998).

The development of empirical studies also revealed instances of irregularities between the theory and the actual impact of aging on IIP. Those discrepancies served as the basis for identifying the factors that may modify the influence of demography on international capital flows and IIP. They include the degree of openness (liberalisation) of capital markets as well as the differences in the level of financial market development and its safety occurring between countries (Mérette and Georges 2009, Brooks 2003). Moreover, as was demonstrated in the research, saving patterns may in fact differ from country to country and they may diverge from the theoretical assumptions of the life cycle hypothesis. On the basis of life cycle models[2] the differences are explained with special conditions occurring in individual countries, such as social security level (in particular, pension system security), cultural conditions or level of affluence (Graff, Tang, and Zhang 2012, Dekle 2004, Börsch-Supan 1992).

The second channel through which population aging impacts on IIP involves other changes in the value of foreign assets and liabilities not caused by transactions (Fig. 1). It occurs through the changes in the determinants of foreign exchange rate, triggered by aging, prices of foreign assets/liabilities and their quantitative changes (Fig. 3).

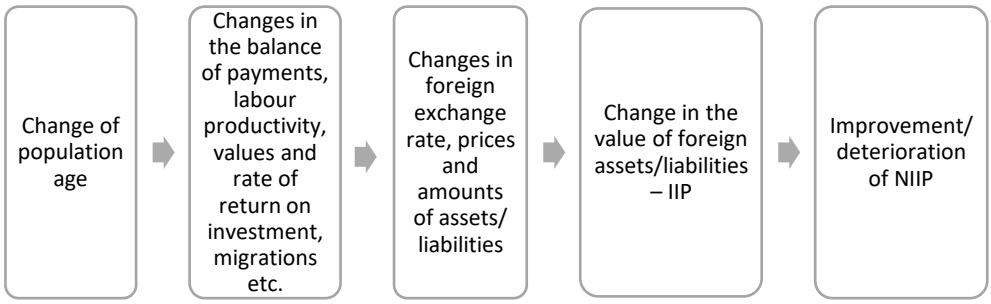


Fig. 3. Process of population aging transmission on IIP – channel of "other changes"

Source: own elaboration.

Depending on the course of changes caused by aging in foreign exchange rates, prices of financial assets and their other quantitative changes, this channel may deepen or compensate the negative impact of transactions on IIP. The mechanisms of population aging affecting IIP through the channel of "other changes" are relatively

[2] Those divergences became the basis for developing an alternative to the life cycle hypothesis, a behavioural life cycle hypothesis. For more on the subject see (Bańbuła 2006).

poorly recognised both in theory and in empirical studies, which produce ambiguous results (Hassan, Salim and Bloch 2011, p. 724; Hassan, Salim and Bloch 2015, pp. 3-4; Lv 2018, p. 303; Gelinas 2018). To a significant degree, it results from a high degree of complexity of the issue as well as from the lack of availability of sufficiently detailed statistical data.

For that reason, the impact of population aging through the channel of "other changes" was not taken into account in further considerations, limiting the analysis to the influence exerted by that phenomenon on Poland's IIP via "transactions" channel.

3. The process of Poland's population aging

According to the concept of demographic transition[3] and global trends, the socio-economic development of Poland in the post-war period was accompanied by the weakening of demographic dynamics and a rise in average life expectancy. The UN forecasts for Poland for the next fifty years reveal a further increase of life expectancy and a continued decrease of birth rates. In the period of 2020–2065 the expected lifespan will be much higher than the global average and it will be closer to the average recorded for developed countries. In turn, the birth rates, contrary to the global average, will be showing negative values. Thus, natural population increase will become a natural population drop, the scale of which will be significantly higher than that observed in developed countries (Table 1).

Table 1. Birth rates and life expectancy in Poland in comparison to economic regions and to the global data in the period of 1950–2065

Years	Birth rate (‰)				Life expectancy (years)			
	Poland	Deve-loped	Deve-loping	World	Poland	Deve-loped	Deve-loping	World
1950-1955	18.8	11.8	20.6	17.8	61.4	64.8	41.7	47.0
1960-1965	11.9	10.1	23.0	19.2	68.3	69.5	46.2	51.2
1970-1975	9.0	6.5	24.1	19.5	70.3	71.1	54.9	58.1
1980-1985	9.4	4.7	21.8	17.8	70.7	72.9	59.5	62.1
1990-1995	3.4	2.3	18.6	15.2	71.2	74.2	62.5	64.6
2000-2005	0.0	0.7	15.3	12.5	74.6	75.6	65.5	67.2
2010-2015	0,1	1.1	14,1	11.9	77.0	78.4	69.1	70.8
2020-2025*	-2.8	0.1	11.6	9.8	78.7	80.1	71.4	72.9
2030-2035*	-4.8	-1.0	9.4	7.8	80.3	81.7	73.3	74.7
2040-2045*	-6.2	-1.7	7.6	6.3	82.0	83.2	75.0	76.2
2050-2055*	-7.2	-2.0	5.9	4.8	83.4	84.5	76.5	77.6
2060-2065*	-8.5	-2.0	4.4	3.63	84.6	85.8	77.8	78.9

*Forecast.

Source: own elaboration based on (United Nations 2018).

[3] For more on the concept of a demographic transition see (Okólski and Fihel 2012).

The population number in Poland is further affected by migration moves, the balance of which in the 1950's was negative (Fig. 4). Although the forecasts indicate its improvement, it will still remain negative, while the developed countries as a group will maintain a high, positive migration balance. According to the forecast, in 2065 Poland will have the greatest negative foreign migration balance in all of Europe, "surpassing" in that regard the net migration of countries such as Romania, Albania or Serbia (UN 2018). The negative balance of migration will contribute not only to Poland's depopulation, but also to changes in the population age structure. Young people (aged far below 65, of which in the women group – women at reproductive age) predominate among emigrants from Poland (GUS 2018).

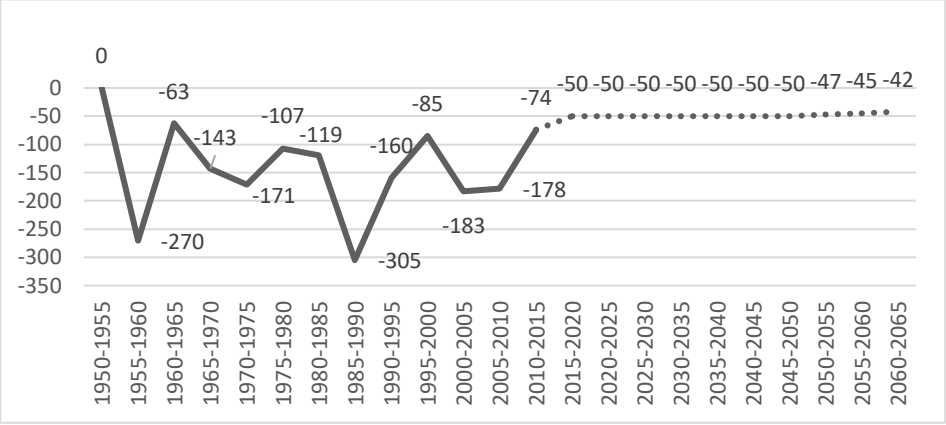


Fig. 4. Net Poland's population migrations in the period of 1950-2015 and a forecast for 2020–2065 (thou. of people)

Source: own elaboration based on (GUS 2018)

As a result of a decrease in birth rates, a rise in life expectancy as well as a negative migration balance, Poland's population was aging. In the period of 1950–2015 the value of demographic age ratio, i.e. the percentage of individuals of 65 and older (65+) in the population in total grew three-fold – from 5.2% in 1950 to 15.6% in 2015 (Table 2). In line with the UN classification[4], Poland's population changed from a mature population (in which the percentage of people at the age of 65+ does not exceed 7%) into an old population (in which the percentage of people at the age of 65+ is higher than 7%).

[4] According to the UN classification: young population – the percentage of 65+ people is lower than 4%, mature population - the percentage of 65+ people is between 4% and 7%, old population - the percentage of 65+ people is higher than 7%, very old population - the percentage of 65+ people is higher than 20% (United Nations, 2005).

In the period of 19502–015 the value of age index, reflecting a relation between the generation of grandparents and grandchildren (the number of persons aged 65 and older to the number of persons aged 0-14), rose nearly 6-fold – from 17.8% in 1950 to 104.9% in 2015. According to the forecast, in 2050 the index will be as high as 299.2%, which means that there will be 300 grandparents per 100 grandchildren (Table 2).

The accelerated aging of Poland's population is further demonstrated by the change in population age median, which rose from 25.8 in 1950 to 39.7 in 2015 (Table 2). Already in the 1980's its value exceeded the threshold of 30 years of age, from which a population is considered to be demographically old.

The aging of Poland's population is also evident in the change of demographic dependency ratios, calculated as a relations between the number of people in the age groups formed according to economic criteria (in the article it was assumed that the age up to 19 constitutes the pre-working age, the age between 20 and 64 is the working age, and the age of 65 and older is the post-working stage). In the period of 1950-2015 the indicator of a relation of the number of people at post-working age (65+) to the number of people in the working age group (20-64) grew in Poland from 9.4% to 24.3% (Table 2).

Table 2. The value of the measurements of population aging in Poland in the period of 1950–2065

Years	Age median (years)	Age ratio (%)	Age index (%)	Demographic dependency ratio (%)		
				old age (65+/20-64)	young age (0-19/20-64)	in total (0-19 and 65+ /20-64)
1950	25.8	5.2	17.8	9.4	70.2	79.6
1960	26.5	5.7	17.0	10.5	74.1	84.7
1970	28.1	8.2	30.1	15.2	69.9	85.1
1980	29.5	10.2	42.5	17.6	54.9	72.5
1990	32.2	10.0	39.6	17.3	56.8	74.1
2000	35.0	12.0	61.5	20.1	47.3	67.5
2015	39.7	15.6	104.9	24.3	31.4	55.7
2030*	46,3	23.2	181.6	39.3	30.4	69.7
2050*	52.2	31.6	219.6	60.8	31.4	92.2
2060*	52.8	35.6	259.2	74.3	34.5	108.8
2065*	53.3	35.8	293.8	74.9	34.4	109.2

*Forecast.

Source: own elaboration based on (United Nations, 2018).

It is forecasted that in the next five decades Poland's population will be undergoing significant advancement of the aging process. In accordance with the UN demographic forecasts, in 2065 the age ratio will rise to 35.8%, population age median will grow up to 53.3, the dependency ratio of elderly people will be as high as 74.9, and the total demographic dependency ratio – over 109% (Table 2).

The results of a comparison of the measurements of Poland's population aging with the global average and the averages for economic regions demonstrate that in the period of 1950–2015 Poland had a relatively young population – the values of the measurements in that period were below the average recorded for the group of developed countries. According to the theory of demographic transition, the progress of aging in Poland was still higher than the average for the less developed countries, which on account of their dominant share in the world population determined the global average values of age ratios (cf. Fig. 5).

In line with the UN forecasts, in the five decades of 2015-2065 the relative demographic position of Poland will undergo a radical change. It is predicted that about 2020 the process of population aging in Poland will accelerate strongly, which will result in Poland's population showing significantly higher values of aging measurements not only in relation to the group of less developed countries and to the world average, but also in relation to the average of highly developed countries (cf. Fig. 5).

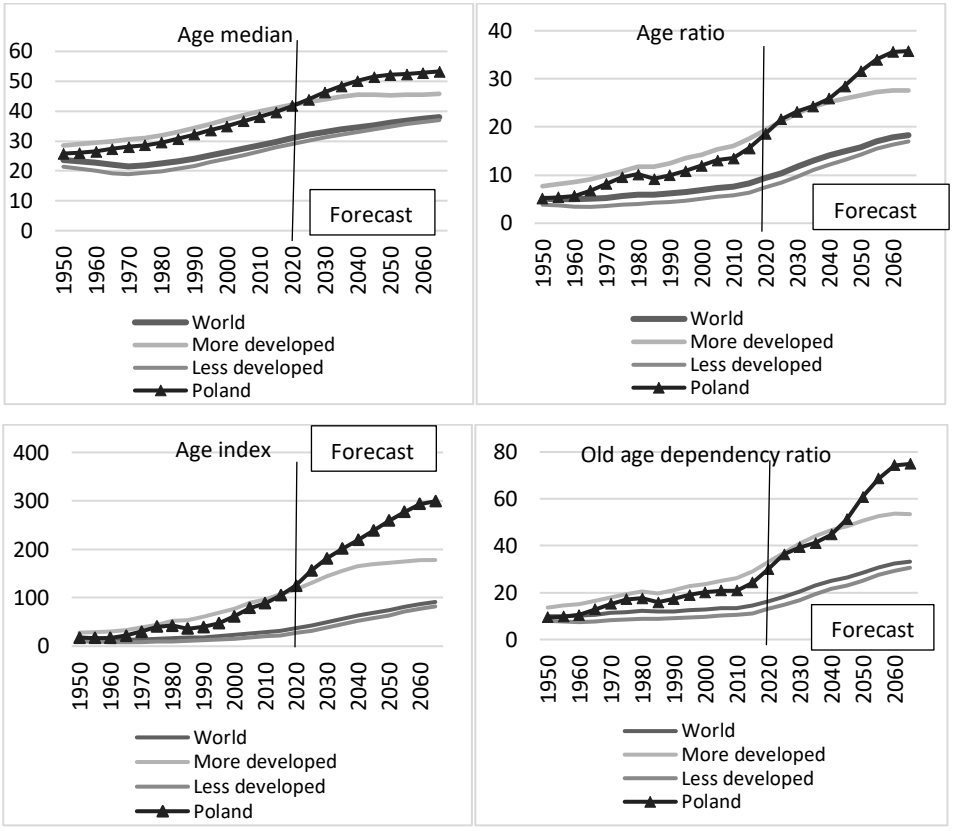
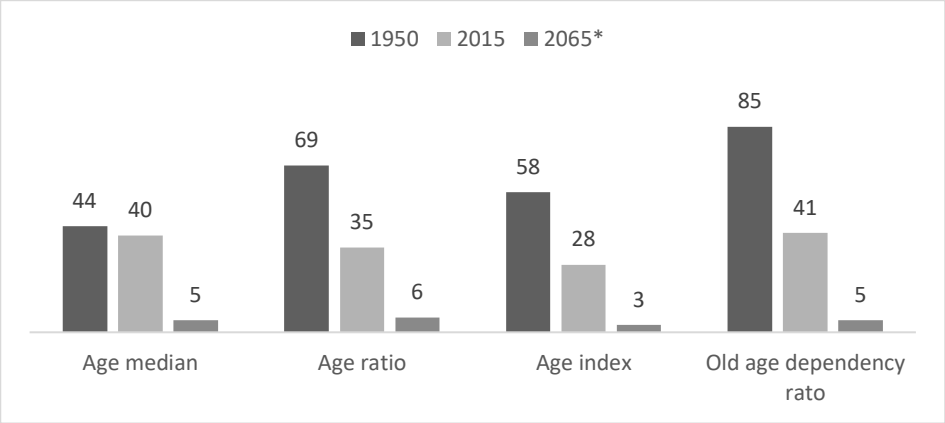


Fig. 5. Selected measurements of population aging in Poland in comparison to the world and economic regions in the period of 1950–2065 (age median – years, other – %)

Source: own elaboration based on (United Nations 2018).

According to the forecast, in 2065 Poland will be among the top-ranking oldest countries in the world. Owing to the age median and the old age dependency ratio it will be in the 5th place in the ranking of the oldest populations, its age index will be the 3rd highest in the world, while its age ratio will reach the 6th highest value globally (Fig. 6).



*Forecast**.**

Fig. 6. Poland's position in the rankings of the oldest countries in the world in 1950, 2015 and 2065

Source: own elaboration based on (United Nations 2018).

In 2025 Poland's population will turn from old to very old (age ratio of over 20%). In 2065 Poland will surpass most of the highly developed countries in the rankings of the oldest countries in the world, including the European Union (EU) members, with the exception of Greece and Portugal. Poland will be the oldest country in the region of Central and Eastern Europe and the oldest among the new EU member states (Table 3).

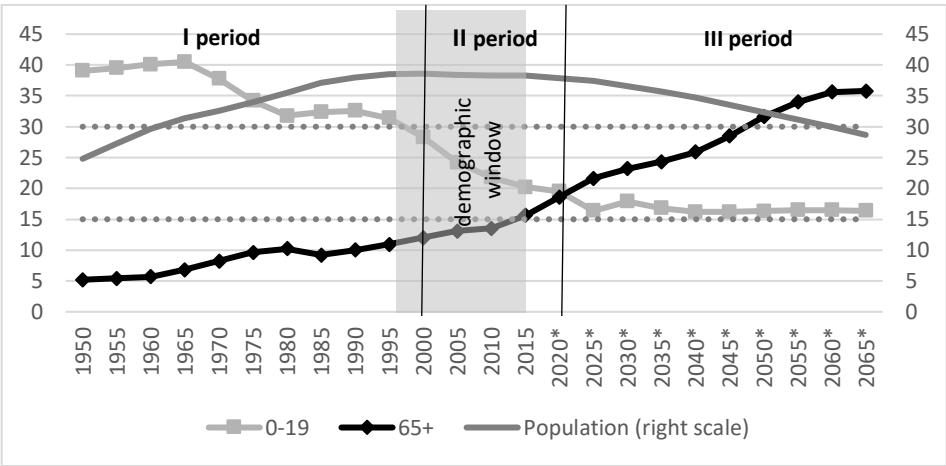
Table 3. Countries with the highest aging measurement values in 2065 (forecast)

Age median		Age ratio		Age index		Old age dependency ratio	
1. Singapore	54.7	1. South Korea	37.7	1. Singapore	343.5	1. South Korea	82.9
2. Portugal	54.2	2. Taiwan	37.6	2. Portugal	308.7	2. Taiwan	82.8
3. Greece	53.7	3. Singapore	36.8	**3. Poland**	**299.2**	3. Japan	78.0
4. South Korea	53.5	4. Japan	36.2	4. South Korea	296.4	4. Singapore	76.0
5. Poland	**53.3**	5. Portugal	35.9	5. Greece	296.1	**5. Poland**	**74.9**
6. Taiwan	53.3	**6. Poland**	**35.8**	6. Taiwan	290.6	6. Portugal	74.4
7. Portorico	53.1	7. Greece	35.3	7. Japan	283.1	7. Hong Kong	73.5
8. Japan	52.8	8. Albania	34.5	8. Portorico	280.0	8. Greece	72.9
9. Spain	52.3	9. Portorico	34.4	9. Spain	271.6	9. Albania	72.5
10. Saint Lucia	52.1	10. Hong Kong	34.3	10. Saint Lucia	270.6	10. Portorico	70.4

Source: own elaboration based on (United Nations 2018).

4. Population aging and Poland's international investment position

From the point of view of the impact on IIP, the course of Poland's population aging process in the years of 1950–2065 may be symbolically divided into three periods. The first one encompasses the years of 1950–2000, during which Poland was a young country featuring a large proportion (over 30%) of people at pre-working age, low percentage of people at post-working age (less than 15%) and a growing population number (Fig. 7).



*Forecast.

Fig. 7. Changes in the percentage of people aged 0-19 and 65+ (%, left scale) and the number of people (millions, right scale) in Poland in the years of 1950–2065

Source: own elaboration based on (United Nations 2018).

The second stage comprises the years of 2000–2020, during which the percentage of people at pre-working age fell below 30% and demonstrated a strong falling trend, the percentage of people aged 65+ was at a relatively moderate level (12%–18%), and the population number stabilised at approximately 38 million (Fig. 7). Furthermore, the percentage of working people aged 45–64 rose significantly, i.e. "prime savers". In the years of 2000–2015 the share of prime savers in Poland for the first time in the post-war period stood higher than the average for developed countries (Fig. 8). Therefore, it can be concluded that in the period under discussion, in particular in the years of 2000–2015, there was a demographic window in Poland[5], i.e. favourable demographic conditions, which create an opportunity of achieving economic benefits (a demographic dividend) – (Fig. 7).

[5] According to the UN recommendations, the phenomenon of a demographic window occurs when the percentage of population younger than 15 is less than 30% and simultaneously the percentage of 65+ population is less than 15% (United Nations 2004).

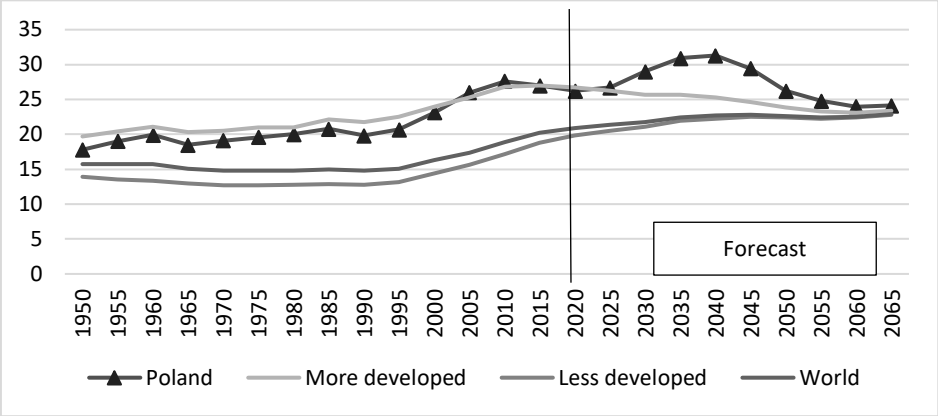


Fig. 8. Percentage of prime savers in the population of Poland, economic regions and the world in total in the years of 1950–2065 (%).

Source: own elaboration based on (United Nations 2018).

The third period concerns the forecast for the demographic changes in 2020–2065, during which the expected pace of growth in the percentage of elderly people (65+) will be significantly higher than the dynamics of a young population decrease (0-19). In 2020 the percentage of the group at post-working age will become equal to the percentage of the group being at pre-working age and it will be rising quickly, while the share of young people will stabilise at the level of slightly above 16%. Consequently, population aging will determine the increase of the dependency ratio of people at non-working age from 61.4% in 2020 up to 109.2% in 2065 (Fig. 9). Such quick population aging, resulting in a growing total demographic dependency ratio, will be accompanied by a significant drop in Poland' population – from 37.9 million in 2020 to 28.7 million in 2065 (Fig. 7). An additional, unfavourable phenomenon will involve a dramatic decrease in the percentage of prime serves, forecasted from 2040 onwards (Fig. 8).

A comparison of the trend of total demographic dependency ratio (as a synthetic measurement of the economic effects of changes in population age structure) in Poland with an average for economic regions and for the world demonstrates that Poland's demographic position in relation to other countries, in particular in relation to developed countries, may be considered as having been the most favourable in the years of 2000–2020 (the second period). The demographic dependency ratio of people at non-working age was lower than the global average, the average for developing countries and – for the first time in the post-war period – the ratio remained at a lower level than the average for developed countries (Fig. 9). From 2020, as a result of the acceleration of the aging process, the demographic dependency ratio in Poland will, however, show a

constantly growing trend. Around 2045 a substantial deterioration of Poland's demographic position is expected – total demographic dependency ratio in Poland will exceed the average values of the measurement for the world as a whole, for developing regions and for developed countries (Fig. 9).

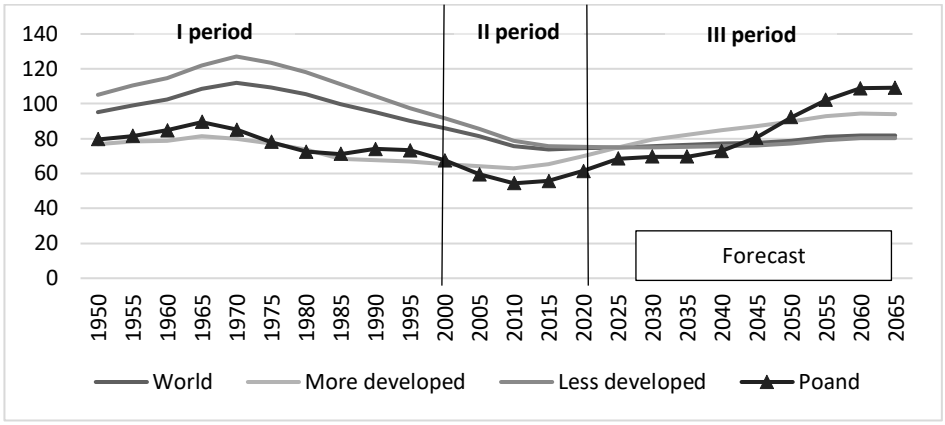
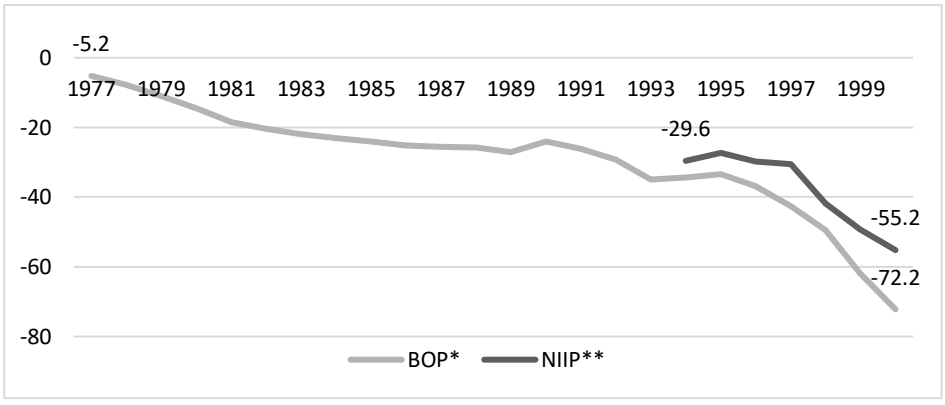


Fig. 9. Total demographic dependency ratio in Poland in comparison to the world average and the average of economic regions in the years of 1950–2065 (%)

Source: own elaboration based on (United Nations 2018).

According to the theory, in the first one of the isolated periods, in the years of 1950-2000, the demonstrated relatively low progress of Polish population aging constituted a factor creating the inflow of foreign capital from countries of higher old age level. Shortage of savings in relation to investment needs and an increased demand for external financing, which is characteristic to young societies, ought to result in a deterioration of/negative NIIP. The specific conditions of the economic system in the first four decades of that period, including the lack of financial openness, modified the influence of demography and limited the influx of foreign capital (Fig. 10).



***** Accumulated current account balance (BOP) as an approximation of NIIP value (data have been available since 1976).

****** Data on Poland's IIP have been available since 1994.

Fig. 10. Accumulated current account balance (BOP) and net IIP in the years of 1977–2000 (bln USD)

Source: own elaboration based on (NBP 2018, World Bank 2018).

In the period of 2000–2020, as a result of an ongoing aging process, the population changed from a young one to an old one (relatively low demographic dependency ratio and relatively high percentage of prime savers). The advancement and pace of population aging should thus favour the growth of national savings, import reduction and the increase of capital export to relatively younger countries. However, the political transformation, underdevelopment and the process of catching up to the EU-15 and the global economic and financial crisis compensated the positive effects of demographic changes in the first decade of the discussed period. Those changes could, however, have contributed to Poland's improved net international investment position recorded in the second half of that period (in the years of 2014–2016) (Fig. 11).

Despite the fact that since 2002 the relation of Poland's NIIP to its GDP significantly exceeded the value that the European Commission considered to be safe from the point of view of external balance evaluation (the so-called "EU threshold", cf. Figure 11), Poland's situation was considered to be stable. It was determined, inter alia, by the structure of Poland's foreign liabilities, in which foreign direct investments dominated (NBP 2016, pp. 20-21).

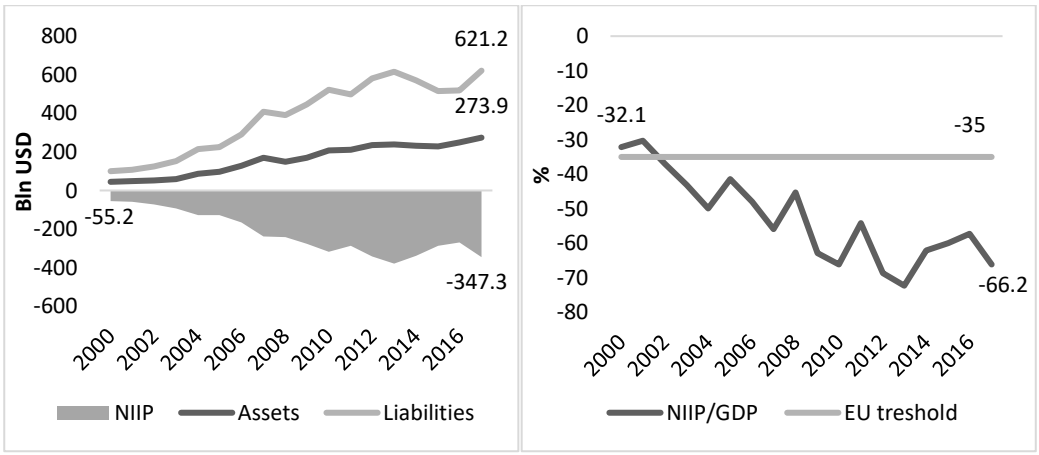


Fig. 11. Poland's international investment position in the years of 2000–2017

Source: own elaboration based on (NBP 2018; World Bank 2018).

During the last of the isolated periods, comprising a forecast for 2020–2065, the expected intensive progress of population aging will contribute to a drop in savings and

an increased demand for foreign capital. Import of surplus savings from mature economies is becoming an important determinant of growth and development opportunities, raising Poland's negative net international investment position.

After 2040 it is likely that the accumulated effects of demographic changes will have a negative impact on the economy, involving: reduction of work resources, decrease in efficiency, shrinkage of the market, high burden on the public finances (with pension payments, health care spending, long-term care, etc.), tax increases (resulting from growing budgetary expenditure and a decreasing tax base). If those threats are fulfilled, it will additionally cause unfavourable changes (in terms of external balance) in IIP structure. It will lead to a decrease in Poland's competitiveness and investment attractiveness, in particular for long-term capital, including foreign direct investments, for which Poland will compete with younger economies both in the majority of developed countries, as well as in the dynamically growing, young markets of the developing countries. Furthermore, it will result in the rise of costs of attracting foreign capital.

The advancement of the phenomenon of population aging will contribute to an increased risk of unproductive use of foreign capital (not on investments and development, but on financing the deficit of public finances generated by the growing burden caused by pension payments, etc.). Thus, a greater influx of foreign savings might not serve to maintain/increase the growth and development pace, but it may cause a growth of foreign debt, burdening the economy with debt and making the economy dependent on external sources of financing. It raises the risk that after 2040 economic stagnation will occur in Poland, that it may fall into "the medium income trap" and that it may face difficulty in catching up to the EU economies (Kalisz and Chrapek 2016, World Bank 2014). Therefore, the import of savings from abroad and high negative NIIP may change from a factor enabling/accelerating real convergence of the economy into a barrier of that process.

In conclusion of the discussion on the influence of population aging on Poland's IIP it needs to be stressed that savings and investments, and thereby the balance of capital flows and IIP are affected by, apart from population aging, a series of other factors. Those factors modify the influence of population aging, while some of them may weaken/compensate its effects, others may strengthen them[6].

[6] Owing to the extensive scope of the issue and editorial limitations concerning the article volume, the analysis of the matter requires a separat

5. Conclusion

After a period of youth in the years of 1950–2000 and the maturity stage in the period of 2015–2020, in the next five decades Polish society will be at the top of the oldest populations in the world. The forecasted high advancement of population aging process will be a factor of a growing demand for foreign capital and a deterioration of Poland's international investment position.

An increased inflow of foreign capital from the "old" economy may, however, not translate into the expected maintenance/increase of the economic growth pace, while a substantial negative net international investment position may become a barrier to development in the subsequent periods.

The right state politics plays an especially important role in alleviating the negative influence of population aging on Poland's international investment position and its development opportunities in the incoming decades. The priorities of those politics ought to focus on raising birth rates, postponing pensionable age, increasing professional activity of old-age pensioners and women, increasing the influx of immigrants, limiting budget deficit and improving the net international investment position.

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Abstract

Starzenie się ludności a międzynarodowa pozycja inwestycyjna Polski

Celem artykułu jest próba oceny wpływu starzenia się ludności na międzynarodową pozycję inwestycyjną Polski w najbliższym pięćdziesięcioleciu. Dla realizacji celu przeprowadzono badania literaturowe, analizę porównawczą mierników starzenia się populacji Polski i innych krajów oraz logiczne wnioskowanie. Wyniki badań wskazują, że prognozowany wysoki poziom zaawansowania procesu starzenia się ludności Polski w okresie 2020–2065 skutkować będzie wzrostem zapotrzebowania na zagraniczny kapitał, zwiększeniem ujemnej międzynarodowej pozycji inwestycyjnej netto i niekorzystnymi zmianami w strukturze zagranicznych pasywów. Napływ zagranicznego kapitału, indukowany starzeniem się populacji, może nie przełożyć się na oczekiwane utrzymanie/zwiększenie

tempa wzrostu gospodarczego, a duża ujemna międzynarodowa pozycja inwestycyjna netto może stać się barierą rozwoju w kolejnych okresach.

Słowa kluczowe: starzenie się ludności, międzynarodowe przepływy kapitału, międzynarodowa pozycja inwestycyjna, Polska