

## THE CONCEPT OF “SAFETY NET” AND ITS APPLICATION IN AMERICAN AND CANADIAN AGRICULTURE

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**Abstract.** This aim of the article was to provide a multi-faceted presentation of the possibilities of application the concept of “safety net” in agriculture in the United States and Canada. Literature review, elements of heuristic methods, and the documentary method – in comparative terms – were used. The theoretical basis of the concept of safety nets in agriculture refer to the achievements earned by many schools and streams in economics and finance. An in-depth analysis is based on an “eclectic” and interdisciplinary approach. In practice, the “architecture” of safety nets in agriculture in the U.S. and Canada is quite complex and is based on relationships between the individual components. The role of risk management systems for agriculture will be strengthened.

**Key words:** financial security, socio-economic security, agricultural policy, “farming safety net”

### INTRODUCTION

Safety is a type of “meta category” that may be considered in an interdisciplinary, or even transdisciplinary manner, including also the area of social sciences, therein economic sciences. Safety may be referred to complex socio-economic structures, sectors, as well as entities – agents of economic decisions (e.g. local government units, financial institutions, farms or households). Subjective, objective and functional scopes of the category of the “safety” category are currently

significantly extended<sup>1</sup>. The specific nature of agriculture, including the variability of environmental conditions and the socio-demographic environment, make policy-makers propose solutions in the form of a bundle (so-called “farming safety net”, FSN) of programmes and support oriented to protection of farms against various risk factors and ensuring them the appropriate level of security (social, economic, or financial). *Signum specificum* of the agricultural sector justifies a need to treat the issue of safety of farms separately, both in social, economic and in financial terms.

The aim of the paper is to provide a multi-faceted presentation of the possibilities of application of the concept of “safety net” in agriculture in the United States and Canada. Selection of these countries results from possibilities of deepening the economic integration degree (respectively, within the framework of the

<sup>1</sup> For example, Iwanicz-Drozdowska (2008) links the category of security (here: “security of the financial services market”) with the “financial crisis” and the “financial stability”. This approach is correct because a specific axis of modern science of finance seems to be the issue of financial stability. Based on a critical analysis of various approaches to defining financial safety nets (inter alia, as formulated by Walter and Weinberg, Ketch and Ingves, Demirgüç-Kunt and Huizinga), Iwanicz-Drozdowska (2008) proposed her own definition, highlighting the importance of the components of, firstly, regulation and self-regulation, and secondly, institutions.

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Transatlantic Trade and Investment Partnership, TTIP and Canadian-European-Union Comprehensive Economic and Trade Agreement, CETA) with the European Union (EU). The specific objectives include (1) to structure theoretical basis for the concept of “safety net”, in relation to the agricultural sector (FSN) along with an attempt to define the “safety net” for agriculture; (2) to present a simplified assessment of systems of “safety nets” in the agricultural sectors in the U.S. and Canada; (3) to indicate factors that could potentially determine the complexity of the FSN instruments, with particular consideration given to the role of the fiscal and social security system. The article uses the method of literature studies as well as – in comparative terms – the documentary method. In addition, the elements of heuristic methods have been applied (*inter alia*, the transfer of concepts from other disciplines).

### THE THEORETICAL BASIS OF THE CONCEPT OF “SAFETY NET” – AN ATTEMPT TO STRUCTURE

Using carefully the transfer and adaptation of concepts from other disciplines, we may notice that the term “safety net” is used to analyse the mechanisms of the functioning of modern financial institutions<sup>2</sup>. By transferring this definition apparatus used in finance (and in fact, in practice of finance – by central banks or financial supervisory authorities), we may notice that the solutions called “networks” or “nets” are generally an organised bundle of solutions, offered both by the public and by the private sector (though “hybrid”, public-private forms may occur). With regard to farms, considered by the disciplines of economic sciences in a “dual” manner i.e. both as households and enterprises, there is a limited opportunity to use the “safety” categories applied in relation to the SME sector<sup>3</sup>. Duraj (2014) stated

<sup>2</sup> For example, Alińska (2012, p. 92) defines the “financial safety network” as a “group of institutional solutions and regulations aimed at protecting the financial system against destabilisation (creating conditions for financial stability)”. She also adds that a ground for creating this kind of networks is “creating conditions for the safe functioning of the financial system and performing its functions” (Alińska, 2011, p. 92).

<sup>3</sup> Monkiewicz (2010) generalised that the links of the financial system are currently covered by “complex protection systems” (called “safety nets”), whose functioning involves both direct and indirect costs. Such nets perform two essential functions

that ensuring safety (in financial terms) is almost a *sine qua non* condition to continue the activity of an enterprise. Duraj, however, focused on the aspect of financial analysis from the perspective of economic entities.

On a basis of a critical review of the conceptual apparatus related to “safety”, the author of the study suggested his own definition of the “safety net” in agriculture (*farming safety net*). The author concluded that the “safety net” in agriculture is a system of interrelated regulations and institutions geared towards ensuring farmers’ safety in social, economic and financial terms<sup>4</sup>.

Table 1 shows various approaches/research streams, that may be some kind of a theoretical matrix for the concept of “safety net”. The theoretical basis of the concept of “safety net” refers to financial interventionism, welfare economics, institutional economics (consequently, institutional finance). In addition, the system approach, and also, to some extent, the network theory (“network paradigm”), may also be helpful to shape the instruments of the network. According to the author of this paper, the concept of “safety net” requires the application of an interdisciplinary and “eclectic” approach<sup>5</sup>. The essential role is played by the theory of state interventionism, that is used fairly well to explain rationales for orienting financial support instruments in agriculture. In addition to research approaches presented in the tabular summary, there are also heterodox orientations, arguing quite heavily with “main-stream” economics. The evolutionary approach, represented by Rosenberg and Lo as well as the anti-naturalistic approach by Frydman and Goldberg, may play a certain role, given the strict, immanent connection between agriculture and environmental factors (Gorazda, 2014).

(Monkiewicz, 2014, p. 293): (1) “preventive”, (2) serving “crisis management”, adding that the “safety net” usually contains (1) “public intervention elements”, (2) “solutions based on market mechanisms”. According to Monkiewicz (2014, p. 296), modern structures of safety nets are based on the layer of objectives (tasks), they form the “stripes” of the safety network.

<sup>4</sup> According to the definition adopted by the United States Department of Agriculture, USDA (2006, p. 1), the “farm safety net” (i.e. safety net of farms), is “a set of programmes and any other type of support which protects farmers against threats such as lost income, limited access to credits, or losses as a result of natural disasters”.

<sup>5</sup> It should be noted that economic sciences are neither of “dogmatising” nature with regard to explaining the socio-economic reality, nor they aspire to that by themselves.

**Table 1.** Theoretical bases of the “safety net” concept – overview of research approaches  
**Tabela 1.** Podstawy teoretyczne koncepcji „safety net” – przegląd podejść badawczych

Research approach/stream Podejście badawcze/nurt	Associations with the concept of “safety net” Asocjacje z koncepcją „safety net”	Reference to the agricultural sector Odniesienie do sektora rolnego
1	2	3
State interventionism Interwencjonizm państwowy	<p>Responding to market failures/imperfections (monopoly, negative externalities on the side of production and consumption, deficiencies related to the income issue) (Sobiecki, 2015; Żmija, 2011)</p> <p>Reagowanie na zawodności/niedoskonałości rynku (monopol, negatywne efekty zewnętrzne po stronie produkcji i konsumpcji, niesprawności związane z kwestią dochodową) (Sobiecki, 2015; Żmija, 2011)</p> <p>Variability of the macroeconomic situation – taking stabilisation measures Zmienność sytuacji makroekonomicznej – podejmowanie działań stabilizacyjnych</p>	<p>Overcoming the “agrarian issue” – resulting from the “incompetitiveness” of land as a factor of production (compared to land and capital) (Czyżewski and Matuszczak, 2011)</p> <p>Przezwycięzanie „kwestii agrarnej” - wynikającej z „niekonkurencyjności” ziemi jako czynnika produkcji (w porównaniu do pracy i kapitału) (Czyżewski i Matuszczak, 2011)</p> <p>“Modulating” generation of externalities (strengthening “positive” ones, suppressing “negative” ones)</p> <p>„Modulowanie” generowania efektów zewnętrznych (wzmocnianie „dodatnich”, wygaszanie „negatywnych”)</p> <p>Preventing excessive disparities in agricultural income (including protection against depopulation of rural areas and agricultural land abandonment)</p> <p>Przeciwdziałanie nadmiernym dysproporcjom w dochodach rolniczym (w tym także zabezpieczeniem przed wyludnieniem obszarów wiejskich i opuszczeniem ziemi rolnej, tzw. <i>land abandonment</i>)</p> <p>Supporting the function of the public goods supplier (<i>inter alia</i>, regarding the agricultural sector), played by the agricultural sector (Wigier and Chmurzyńska, 2011)</p> <p>Wspieranie funkcji dostawcy dóbr publicznych (m.in. dotyczących sektora rolnego), pełnionej przez sektor rolny (Wigier i Chmurzyńska, 2011)</p>
Welfare economics Ekonomia dobrobytu	<p>Striving to achieve the “maximum of social welfare”</p> <p>Dążenie do uzyskania „maksimum dobrobytu społecznego”</p> <p>Problem concerning the relationship between the Pareto efficiency and social justice (Wigier, 2012)</p> <p>Problem dotyczący relacji między efektywnością w sensie Pareto a sprawiedliwością społeczną (Wigier, 2012)</p>	<p>Striving for an economically, socially and politically acceptable parity between income achieved by farmers and non-agricultural income (Hill, 2000)</p> <p>Dążenie do parytetu akceptowalnego ekonomicznie, społecznie i politycznie między dochodami uzyskiwanymi przez rolników a dochodami poza rolnictwem (Hill, 2000)</p> <p>Reducing structural disparities resulting from “delay in the development of agriculture”</p> <p>Ograniczenie dysproporcji strukturalnych wynikających z „opóźnienia w rozwoju rolnictwa”</p>
Institutional economics and finance as well as related approaches and streams (new institutional economics, neo-institutionalism) Ekonomia i finanse instytucjonalne, a także podejścia	<p>Theoretical basis of the functioning of public institutions and public choice (neo-institutionalism) (Czyżewski and Matuszczak, 2008)</p> <p>Teoretyczne podstawy funkcjonowania instytucji publicznych i wyboru publicznego (neoinstytucjonalizm) (Czyżewski i Matuszczak, 2008)</p> <p>Extending the framework of neoclassical analysis by standards and entities correcting “imperfections of the market mechanism”, including the “imperfect competition, immobility and indivisibility of factors of production and information asymmetry” (Czyżewski and Matuszczak, 2008, p. 34)</p>	<p>Public transaction costs related to maintenance of safety nets in agriculture (Chotkowski, 2010)</p> <p>Publiczne koszty transakcyjne związane z utrzymanie sieci bezpieczeństwa w rolnictwie (Chotkowski, 2010)</p> <p>Including the functions of institutions supporting the implementation of the agricultural policy objectives (<i>inter alia</i>, paying agencies, agricultural advisory centres, chambers of agriculture)</p> <p>Uwzględnienie funkcji instytucji wspierających realizacji celów polityki rolnej (m.in. agencje płatnicze, ośrodki doradztwa rolniczego, izby rolnicze)</p> <p>“Legal standards”, as well as institutions (at a higher level of development replaced by contract integration)</p>

**Table 1 cont. – Tabela 1 cd.**

1	2	3
i nurty powiązane (nowa ekonomia instytucjonalna, neoinstytucjonalizm)	Rozszerzenie ram analizy neoklasycznej o normy i podmioty korygujące „niedoskonałości mechanizmu rynkowego”, w tym „niedoskonałą konkurencję, niemobilność i niepodzielność czynników produkcji oraz asymetrię informacji” (Czyżewski i Matuszczak, 2008, s. 34)	„Normy prawne”, a także instytucje (na wyższym poziomie rozwoju zastępowane przez integrację kontraktową) Supporting “quality of the economic system of agriculture” in facilitating access to capital (Kata, 2009) Wspieranie „jakości systemu ekonomicznego rolnictwa”, w ułatwienia w dostępie do kapitału (Kata, 2009)
System approach Podejście systemowe	Assumption on the existence of the “regulation subsystem” and “executive subsystem” Założenie o istnienie „podsystemu regulacji” i „podsystemu wykonawczego” Using the systems theory along with its definition apparatus (e.g. stability, adaptation, regulation) (Sadowski and Zajdel, 2009) to describe safety nets Wykorzystanie teorii systemów wraz z jego aparatem definicyjnym (m. in. stabilność, adaptacja, regulacja) (Sadowski i Zajdel, 2009) do opisu sieci bezpieczeństwa	Interactions of nets with the social environment of agriculture Interakcje sieci z otoczeniem społecznym rolnictwa Relation of the agricultural sector with the social environment and the natural environment: the context of the impact of nets Powiązanie sektora rolnego z otoczeniem społecznym i środowiskiem naturalnym: kontekst oddziaływania sieci

Source: own elaboration.  
Źródło: opracowanie własne.

## SAFETY NETS IN AGRICULTURE IN THE U.S. AND CANADA: CONSTRUCTION AND ATTEMPT TO ASSESS THE FUNCTIONING

Table 2 shows the types of instruments being a part of safety nets – functioning in the USA and Canada<sup>6</sup>. Although both neighbouring countries are characterized by a fairly high socio-economic status<sup>7</sup>, there are some differences resulting, *inter alia*, from different historical conditions (the USA as a federal state). The components of the aforesaid safety nets include grants, tax and social security systems and economic. The “base” for the net includes institutions operating for agriculture and the regulations relating to the safety of farms. It is worth

<sup>6</sup> Canadian legislators noted that the “success” of the agri-food industry may be achieved through providing agricultural producers with information resources, tools, and skills necessary to participate in market gambling. In addition to the fundamental objective i.e. achieving the profitability and the growth, it is important to strengthen the mechanisms responsible for maintaining “bargaining power” of various integration forms of farmers (CFA, 2007, p. 3).

<sup>7</sup> It should be noted that the most mature and advanced practical solutions have been formulated in the “welfare states”.

noting that the Canadian system of subsidies exposes the stabilization of agricultural income, which is linked to the risk management system in agriculture. In the US agricultural policy moved away from direct payments. It is quite interesting to offer many tools within the business insurance system, which seems to be risk management system in agriculture. This includes, among others, AgriRecovery in Canada, or optional systems of price risk management (Agriculture Risk Coverage and Price Loss Coverage). Starting from 2014 (USDA, 2014b), the American agricultural policy began to highlight the role of subsidised business insurance. Similarly as in Canada, policy-makers pointed to a need to provide income risk management instruments. The production risks, associated with connecting the production with environmental factors, as well as the market risk and the risk associated with the occurrence of disaster events (disaster risk), were a challenge to create integrated Business Risk Management (BRM) programmes, the objective of which was to ensure the stability of the functioning of farms.

Table 3 shows a simplified assessment of the FSN systems, taking into account three types of criteria: (1) political, (2) regarding the impact on the sector, (3) referring to the impact at the micro-level. Within the

**Table 2.** Components of safety net in agriculture in the U.S. and Canada  
**Tabela 2.** Składowe sieci bezpieczeństwa w rolnictwie USA i Kanady

Specification Wyszczególnienie	The U.S. – USA	Canada – Kanada
1	2	3
System of subsidies System dotacji	The developed range of subsidies in a form of agri-environmental payments (NRCS Conservation Programmes), a wide range of repayable instruments (within the framework of Rural Development Loan and Grant Assistance); in addition, the form of a subsidy offered to households achieving low income is support under the programme Supplemental Nutrition Assistance Program (SNAP) Rozwinięty zakres dotacji w formie płatności rolnośrodowiskowych (NRCS Conservation Programmes), szeroki wachlarz instrumentów zwrotnych (w ramach Rural Development Loan and Grant Assistance); ponadto formą dotacji oferowaną gospodarstwom domowym, uzyskującym niski poziom dochodów, jest wsparcie w ramach programu Supplemental Nutrition Assistance Program (SNAP)	Price Pooling Program – prices guaranteed for selected products as protection against unexpected declines in market prices Price Pooling Program – ceny gwarantowane dla wybranych produktów jako ochrona przed nieoczekiwanymi spadkami cen rynkowych AgriStability – central programme for the stabilisation of agricultural income AgriStability – centralny program stabilizacji dochodów rolniczych
Fiscal system System podatkowy	Definition of the “farm”, “farm holder” in fiscal law, “embedded into the schedular system” Definicja „gospodarstwa rolniczego”, „producenta rolnego” ( <i>farm holder</i> ) w prawie podatkowym, „wbudowana w system cedularny” Catalogue of tax-deductible expenses, taking into account, <i>inter alia</i> , business insurance Katalog kosztów uzyskania przychodu ( <i>tax-deductible expenses</i> ), uwzględniając m.in. ubezpieczenia gospodarcze Tax reliefs for so-called hobbyist farmers – support for agricultural income generation Ulgi podatkowe dla tzw. rolników – hobbistów, wspieranie generowania dochodów pozarolniczych Including the “farm income” category (Schedule F – Part I) – adaptation to the cash-based method Uwzględnienie kategorii „farm income” (Schedule F – Part I) – dostosowanie do metody kasowej	Category of “farm income” Kategoria „dochodu z gospodarstwa rolniczego” Possibility of using the cash-based method to calculate income, however, a possibility of its use is determined by a fiscal authority) Możliwość wykorzystania metody kasowej do obliczania dochodu, jednak o możliwości jego wykorzystania decyduje organ podatkowy)
Social security system System ubezpieczeń społecznych	Based on universal solutions (there is no special scheme for farmers, although there are some references to the specific nature of agricultural production) Oparty na rozwiązaniach powszechnych (nie ma specjalnego systemu dla rolników, choć są pewne odniesienia do specyfiki produkcji rolniczej) Social Security, Medicare, Medicaid Social Security (OASDI) Programme Supplemental Security Income (SSI) Use of payroll tax Wykorzystanie podatku od funduszu płac	Based on three pillars (1st and 2nd are mandatory, 3rd is private) Oparty na trzech filarach (I i II o charakterze obowiązkowym, III o charakterze prywatnym) Old Age Security (OAS) as the core of the system: OAS Retirement Pension, Guaranteed Income Supplement, the OAS Allowance, OAS Allowance for Survivors, Canadian Pension Plan/Quebec Pension Plan Old Age Security (OAS) jako główny trzon systemu: OAS Retirement Pension, Guaranteed Income Supplement, OAS Allowance, OAS Allowance for Survivors Canadian Pension Plan/ Quebec Pension Plan
Business insurance system System ubezpieczeń gospodarczych	Subsidised systems: optionally Agriculture Risk Coverage (ARC) & Price Loss Coverage (PLC) Systemy dotowane: opcjonalnie Agriculture Risk Coverage (ARC) & Price Loss Coverage (PLC) Possibility of reallocating the database for payments, as well updating yield	AgriInsurance – offering agricultural producers partly subsidised insurance in order to minimise financial consequences of production and/or assets losses AgriInsurance – oferowanie producentom rolnym częściowo dotowanego ubezpieczenia w celu zminimalizowania skutków finansowych strat produkcyjnych i/lub aktywów

**Table 2 cont. – Tabela 2 cd.**

1	2	3
	<p>Możliwości realokowania bazy dla płatności, a także aktualizacji wydajności pól</p> <p>Farmers have a possibility of either (1) retaining the database from 2013 to 2018, or (2) reallocating the area database. This applies to the specified catalogue of crops</p> <p>Rolnicy mają możliwość albo (1) utrzymania bazy z 2013 r. do 2018 r., albo (2) realokacja bazy powierzchni. Dotyczy to określonego katalogu upraw</p> <p>USDA Drought Programs and Assistance (set of programmes, tools, information services, as well as legal regulations) – main of them are: Livestock Forage Program (LFP), Livestock Indemnity Program (LIP)</p> <p>USDA Drought Programs and Assistance (zbiór programów, narzędzi, usług informacyjnych, a także regulacji prawnych) – główne: Livestock Forage Program (LFP), Livestock Indemnity Program (LIP)</p> <p>Emergency Loans – system of disaster credits granted for the reconstruction of the production potential of a farm</p> <p>Emergency Loans – system kredytów kłeszkowych udzielonych na odbudowę potencjału produkcyjnego gospodarstwa</p>	<p>AgriRecovery – framework approach, involving both federal and provincial level, regarding designing ex-post initiatives depending on the size and type of disaster events (atmospheric or biological – animal and plant diseases). Assistance under AgriRecovery allows to cover losses and restore the production and financial potential necessary for the continuation of the activity</p> <p>AgriRecovery – podejście ramowe, obejmujący zarówno poziom federalny, jak i prowincji, dotyczący projektowania inicjatyw ex post w zależności od rozmiaru i rodzaju zdarzeń kłeszkowych (pogodowych bądź biologicznych – chorób roślin i zwierząt). Pomoc w ramach AgriRecovery pozwala na pokrycie strat i odtworzenie potencjału produkcyjnego i finansowego niezbędnego do kontynuacji działalności</p> <p>AgriRisk Initiatives (ARI) program supports – Research and Development (R&amp;D) – the development of modern risk management tools</p> <p>AgriRisk Initiatives (ARI) program supports – Research and Development (R&amp;D) – rozwój nowoczesnych narzędzi zarządzania ryzykiem</p> <p>Administrative Capacity Building (ACB) – support for the private system and public-private partnership as suppliers</p> <p>Administrative Capacity Building (ACB) – wsparcie systemu prywatnego i partnerstwa prywatno-publicznego jako dostawców</p>
Agricultural institutions Instytucje rolnicze	<p>Government agencies: Risk Management Agency (risk management), Farm Service Agency (major paying agency, as well as offering preferential credits for farmers); information and statistical service offered by the Economic Research Service, Foreign Agricultural Service, and National Agricultural Statistics Service</p> <p>Agencje rządowe: Risk Management Agency (zarządzanie ryzykiem), Farm Service Agency (naczelną agencją płatniczą, a także oferującą preferencyjne kredyty dla rolników); serwis informacyjno-statystyczny, oferowany przez Economic Research Service, Foreign Agricultural Service, and National Agricultural Statistics Service</p>	<p>Government agencies at the provincial level (exception: La Financière agricole) – administering a package of three programmes, Agricultural Institute of Canada</p> <p>Agencje rządowe na poziomie prowincji (wyjątek: La Financière agricole); Agricultural Institute of Canada</p> <p>Drought Watch – service of up-to-date information for the agricultural sector in order to determine the impact of the climate variability on water supply</p> <p>Drought Watch – serwis aktualnych informacji dla sektora rolniczego w celu określenia wpływu zmienności klimatu na zaopatrzenie w wodę</p>
Other legal regulations Pozostałe uregulowania prawne	<p>The 2014 Farm Bill – act relating to the agricultural policy objectives and tools of the USA within the framework of the multiannual programme</p> <p>The 2014 Farm Bill – ustawa dotycząca celów i narzędzi polityki rolnej USA ujętych w ramach programu wieloletniego</p>	<p>Growing Forward 2 – as the framework of the agricultural policy for the years 2013–2018</p> <p>Growing Forward 2 – jako ramy polityki rolnej na lata 2013–2018</p> <p>Farm Debt Mediation Service – publicly offered financial and legal advisory services</p> <p>Farm Debt Mediation Service – oferowane publicznie usługi doradztwa finansowego i prawnego</p>

Explanation: \*status as of September 2015.

Source: own elaboration, based on data from the American and Canadian departments of agriculture.

Objaśnienie: \*stan na wrzesień 2015 r.

Źródło: opracowanie własne na podstawie danych ministerstw rolnictwa USA i Kanady.

**Table 3.** Multi-criteria assessment of safety net systems in the USA and Canada  
**Tabela 3.** Wielokryterialna ocena systemów siatek bezpieczeństwa w USA i Kanadzie

Specification – Wyszczególnienie		USA	Canada
Political criteria Kryteria polityczne	Impact on sustainability of public finance (amount of burden on the state budget) Oddziaływanie na zrównoważenie finansów publicznych (wysokość obciążeń budżetu krajowego)	++	+
	Acceptability by international organisations (including WTO) Akceptowalność przez organizacje międzynarodowe (w tym WTO)	+/-	+/-
	Level of administrative and operating costs Poziom kosztów administracyjnych i operacyjnych	–	—
	Efficiency in the implementation of objectives Skuteczność w realizacji celów	+	+
	Speed of the operation of instruments Szybkość działania instrumentów	+	++
	Complementarity and substitutability of elements Komplementarność i substytucyjność instrumentów	+/-	+
Criteria regarding the impact on the sector Kryteria dotyczące oddziaływania na sektor	Impact on the rate of structural transformations Oddziaływanie na tempo przemian strukturalnych	+	++
	Impact on the competitiveness of the sector Oddziaływanie na konkurencyjność sektora	+/-	+
Criteria of the impact at the micro-level Kryteria oddziaływania na poziomie mikro	Tendency to take a risk Skłonność do podejmowania ryzyka	–	+/-
	Impacts on the economic and financial efficiency of farms Oddziaływania na efektywność ekonomiczną i finansową gospodarstw	+	++

Explanation: the number of characters – strength of the impact, – negative impact, + positive impact +/- neutral or hard to assess impact; the assessment made by the author was based on literature studies and analysis of data from ministries of agriculture of USA and Canada.

Source: own elaboration.

Objaśnienie: liczba znaków – siła oddziaływania, – oddziaływanie negatywne, + oddziaływanie pozytywne, +/- oddziaływanie neutralne lub trudne do oceny; ocena dokonana przez autora na podstawie studiów literaturowych i analizy danych ministerstw rolnictwa USA i Kanady.

Źródło: opracowanie własne.

abovementioned criteria, there are detailed areas of evaluation (therein, inter alia, political criteria include the impact on the sustainability of public finances, the level of administrative and operational costs, where the solutions in the United States may be assessed more positively). It plays an important role also to recognize the effectiveness in achieving goals, or the speed of the instruments: Canadian solutions (e.g. AgriStability) assessed may be assessed positively. In a detailed assessment of the FSN, it is necessary to take into account the complementarity/substitutability of elements, the impact

of the net structure on public finance as well as the impact on the competitiveness of the agricultural sector in a given country in international terms. More in-depth analysis of the FSN systems in the USA and Canada indicates a need of greater diversification and „dynamic matching” of the FSN tools to the economic specific nature of farms and their social environment.

**Table 4.** Factors shaping the architecture of the „farming safety net”  
**Tabela 4.** Czynniki kształtujące architekturę „farming safety net”

Group of factors Grupa czynników	Specification – Uszczegółowienie
Environmental conditions Uwarunkowania przyrodnicze	Climate and weather, soil, biological factors, the presence of conditions favourable or unfavourable to the plant/livestock production or mixed production Czynniki klimatyczno-pogodowe, glebowe, biologiczne, obecność warunków sprzyjających bądź niekorzystnych dla produkcji roślinnej/zwierzęcej bądź mieszanej
Political conditions Uwarunkowania polityczne	Type of the state system (unitary or federal), nature of parties in the coalition, political cycle phase, degree of independence of the national agricultural policy Rodzaj ustroju państwa (unitarny bądź federalny), charakter partii będących w koalicji, faza cyklu politycznego, stopień niezależności krajowej polityki rolnej
Socio-demographic conditions Uwarunkowania społeczno-demograficzne	Share of the agricultural population in the total population, migration to urban centres, age structure, education level of the agricultural population, current and future socio-demographic problems, e.g. increasing ageing in rural areas Udział ludności rolniczej w ludności ogółem, migracja do ośrodków miejskich, struktura wiekowa, poziom wykształcenia ludności rolniczej, bieżące i przyszłe problemy społeczno-demograficzne, np. nasilające się starzenie na wsi
Sectoral conditions Uwarunkowania sektorowe	Intensification/extensification of the agricultural production, dominant direction of the agricultural production, specialisation/diversification of the agricultural production, degree and type of the integration of a farm in the agri-food chain, vertical integration, horizontal integration, relation between farms and financial institutions, advisory bodies Intensyfikacja/ekstensyfikacja produkcji rolniczej, dominując kierunek produkcji rolnej, specjalizacja/dywersyfikacja produkcji rolniczej, stopień i rodzaj integracji gospodarstwa w łańcuchu rolno-spożywczym, integracja pionowa, pozioma, powiązanie gospodarstw z instytucjami finansowymi, instytucjami doradztwa
Psychological conditions Uwarunkowania psychologiczne	Mainly the degree of farmers’ aversion to the risk associated immanently with the production in this sector Głównie stopień awersji rolników do ryzyka związanego immanentnie z produkcją w tym sektorze

Source: own elaboration.  
 Źródło: opracowanie własne.

## FACTORS DETERMINING THE ARCHITECTURE OF “FARMING SAFETY NET”

The instruments forming the safety net are mutually interrelated, therefore we may use the term “architecture of net” (term taken from banking, e.g. “architecture of financial safety nets”). The scope and interrelation/interactions of the components depend on the level of financial interventionism in agriculture. The degree and scope of subsidisation of farms, as well as “tax expenditures” within the framework of preferential fiscal systems and social security systems are important elements of the FSN. Table 4 presents a typology of the factors shaping the architecture of the “farming safety net”. Particular attention should

be paid to “sectoral conditions” concerning the specific nature of the agricultural production in a given country.

## CONCLUDING REMARKS

The theoretical basis of the concept of safety nets in agriculture refers to the achievements earned by many schools and streams in economics and finance. An in-depth analysis is based on an “eclectic” and interdisciplinary approach. In practice, the “architecture” of safety nets in agriculture in the U.S. and Canada is quite complex and is based on relationships between the individual components. The role of risk management systems for agriculture will be strengthened.



Under the influence of, *inter alia*, the WTO pressure to reduce support addressed to the agricultural sector, the role of tools that will be more neutral for central budgets, including quasi-market ones, will be increasing. An attempt to adapt, e.g. in Poland, some solutions of “safety nets” from the USA or Canada may encounter some barriers related to the limited possibilities of shaping the national agricultural policy (vide: CAP)<sup>8</sup> and a relatively weaker relation between agriculture and financial institutions<sup>9</sup>. Taking into account the experience of the North American countries, in implementing the changes in the safety network for Polish agriculture, it should be noted that the greater scope of public support even encourages agricultural producers to “more risky” production behaviour<sup>10</sup>. In addition to the issue of ensuring a bundle of interrelated stabilisation instruments (oriented to ensuring social, economic, financial security), the skillful linking with the instruments strengthening the role of agriculture as a public goods supplier (e.g. agri-environmental payments) is of great importance. The crowding-out effect may relate to the FSN structure: we may foresee the resignation for the benefit of supporting agricultural products prices,

stabilising income and, in the future, popularising agricultural income insurance<sup>11</sup>.

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<sup>8</sup> The obstacle in the form of limited possibilities of shaping national agricultural policy is associated with the fact that most of the issues (concerning agricultural subsidies, direct payments and investment grants) is the responsibility of the Common Agricultural Policy. This body creates a framework that is implemented by individual Member States (e.g. Rural Development Programs that can be as freely by the policy-makers of the EU). National agricultural policy, excluding the area of “fitting” CAP to the specific national concerns, therefore becoming narrower area (which can include preferential crediting of agriculture).

<sup>9</sup> This refers to restrictions on access to credit agricultural sector. As indicated rightly Kata (2011, p. 116), the conditions for applying the credit intervention of should be include “mitigating the effects of credit rationing and other imperfections of the financial markets, the liquidation of underinvestment in agriculture, counteracting the negative effects of a monopoly position (or an excessive concentration) banks or subsidising certain groups agricultural population”.

<sup>10</sup> Large farms are characterised by a significant degree of financial self-sufficiency and may use the instruments offered by the private sector (e.g. insurance products). Therefore, it is necessary to consider the validity of flat-rate support and also to take into account the degressive structure, narrowing the group of potential beneficiaries (Freshwater, 2002).

<sup>11</sup> We should expect the greater popularity of programmes “imitating” the solutions offered by the private sector (Kane, 2001). However, what is necessary, are advanced supervision and coordination strategies, which take into account a need to prevent insolvency and financial inefficiency. Building the public crisis management system, in accordance with the principles of good governance, leads, on one hand, to an improvement in its financial efficiency, while, on the other hand, the complex supervision system to some extent undermines moral hazard of participating farmers.

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## KONCEPCJA „SAFETY NET” I JEJ ZASTOSOWANIE W ROLNICTWIE USA I KANADY

**Streszczenie.** Celem artykułu było wieloaspektowe przedstawienie możliwości zastosowania koncepcji „safety net” w rolnictwie USA i Kanady. Wykorzystano metodę studiów literaturowych, elementy metod heurystycznych, a także – w ujęciu porównawczym – metodę dokumentacyjną. Podstawy teoretyczne koncepcji siatek bezpieczeństwa w rolnictwie odwołują się do dorobku wypracowanego przez wiele szkół i nurtów ekonomii oraz finansów. Ich pogłębiona analiza opiera się na podejściu o charakterze „eklektycznym” i interdyscyplinarnym. W praktyce „architektura” siatek bezpieczeństwa w rolnictwie USA i Kanady jest dosyć złożona, a opiera się na współzależności między poszczególnymi komponentami. Rola systemów zarządzania ryzykiem w rolnictwie zostanie wzmocniona.

**Słowa kluczowe:** bezpieczeństwo finansowe, bezpieczeństwo społeczno-ekonomiczne, polityka rolna, „farming safety net”

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