AGRICULTURE AND FOOD DEVELOPMENT AUTHORITY

The Irish Agriculture and Food Development Authority

AESI
Agricultural Economics Society of Ireland

CAP Reform Overview





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CAP 2014: Impetus, Impact and Implementation

CAP Reform Overview

- CAP reform process a long one
  - "… three years of reflection, discussion and intensive negotiation." (EC, December 2013)
- First CAP reform under new TFEU (Lisbon Treaty)
  - Parliament, Council and Commission all now involved
  - Council and Parliament co-decision
- CAP reform process in parallel/conjunction with EU budget process (MFF 2014-2020)
  - MFF (budget) agreed in February 2013

CAP Reform Overview

- November 18 2010, EC Communication
- October 12 2011, EC Legal Proposals
- 13 March 2013, Parliament negotiating mandate agreed
- 25 March 2013, Council negotiating mandate agreed
- April 2013, Triologue process starts formally
- 26 June 2013, Political Agreement
  - 24 September 2013, Agreement on issues relating to Budget and CAP between EC, EC and MS
- 20 November 2013, EP legislative resolution on CAP reform
- 16 December 2013, Final adoption by the Council of CAP 2014-2020

Consilium summary available here http://goo.gl/YoJU2S

CAP Reform Overview

- CAP reform centres on 4 regulations
  - Direct Payments , Single CMO, Rural Development & Horizontal measures
- Most of the focus of today will be on Pillar I
  - Pillar I still accounts for the majority of the spending (77%)
  - but Pillar II is also important
- Agriculture will still account for almost 38% of EU spending over the period 2014-2020
- New CAP regulations to apply from 2015 to 2020
  - 2014 “new wine in old bottle” – new budget & old CAP rules

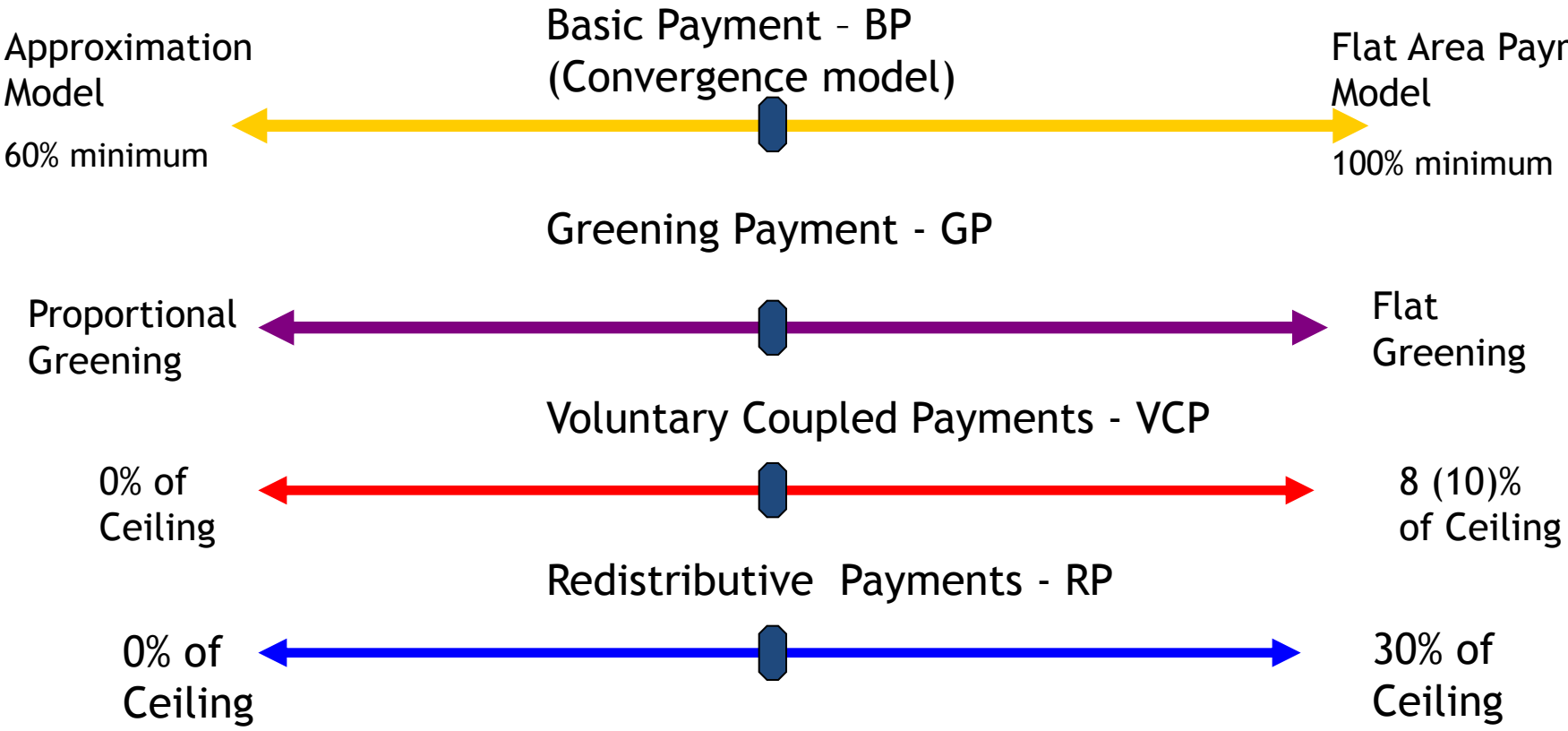
CAP Reform Overview

- Direct payment regulation
  - All member states (MS) must have a Basic Payment Scheme, Green Payment Scheme & Young Farmers Scheme
  - MS may also voluntarily (under Pillar I) introduce coupled direct payment, redistributive payment, areas of natural constraint and small farmers payment schemes
  - Member States may (within limits) transfer budgetary resources form Pillar II to Pillar I and *vice versa*
  - All MS must devote 30% of their Pillar I ceiling to Greening
  - The budgetary resources available to fund the Basic payment scheme depends on the resources allocated to the other optional and mandatory schemes

Reform Overview

- Internal Convergence Process to make distribution of payments fairer within MS
- To take place over period 2015 to 2019
- Set of possible end point options
  - Flat area payment (EC proposal)
  - Approximation model
    - Applying the external convergence idea to internal convergence
    - Minimum payment must reach 60% of average by 2019
    - As minimum level approaches average, Irish model converges on Flat area payment model
  - Places in between

CAP reform options: "Graphic Equaliser"

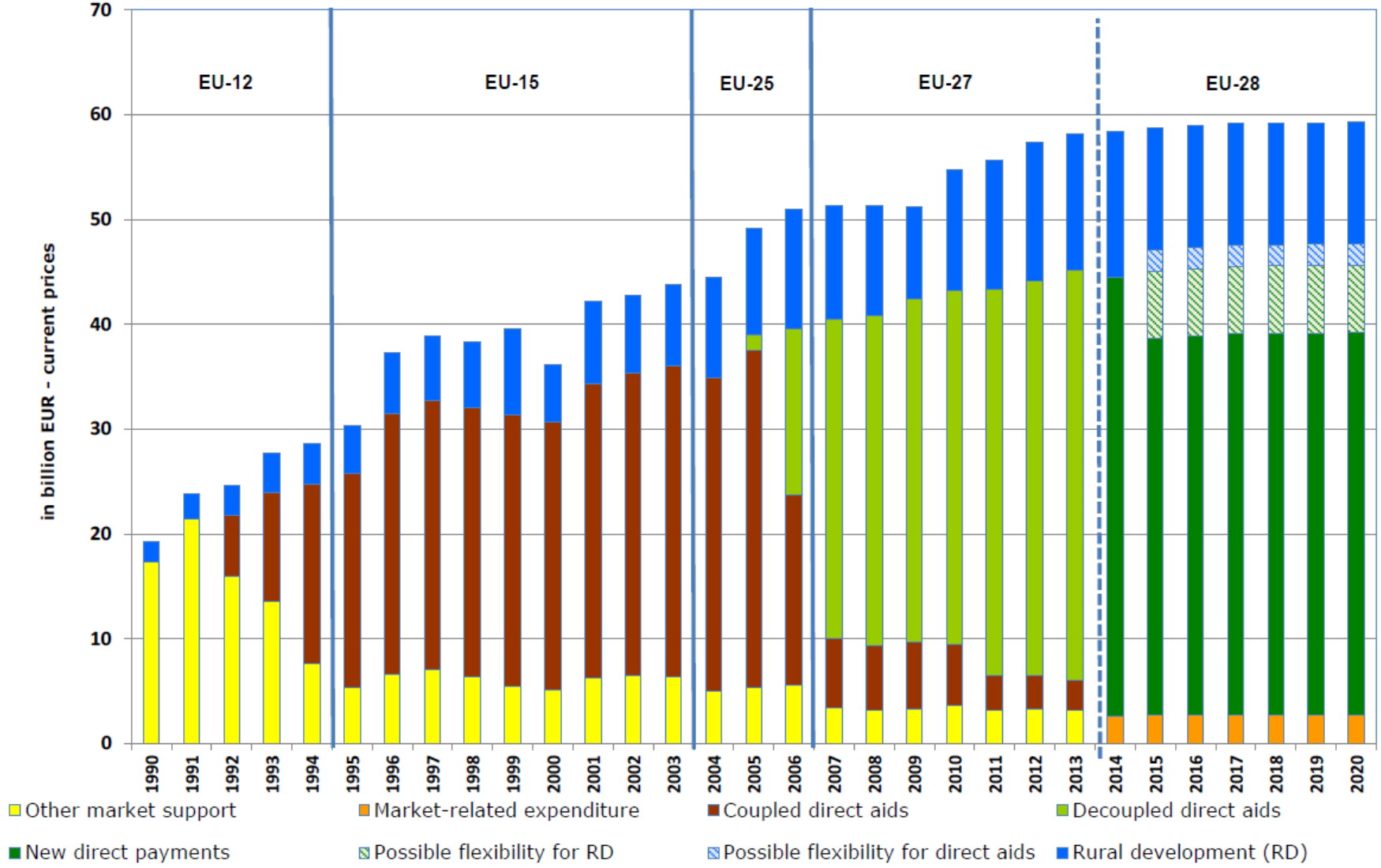


N.B. as the convergence model moves from left towards right the "proportional" greening converges on a flat greening payment

CAP Reform Overview: Budget

- MFF 2014-2020 Heading 2
  - "Sustainable Growth: Natural Resources"
  - Total of €373,179 m (in 2011 prices) between 2014 and 2020
    - Pillar I accounts for over 74% of total
- Ireland total receipts (per annum) under Heading 2 of €1,525 m
  - Pillar I accounts for over 80% of MFF contribution
  - With co-financing as announced by Government in January total share of Pillar I in total in Ireland decreases to 67%

CAP expenditures by Calendar Year



Source: DG Agri, Agricultural Policy Perspectives Brief No. 5, December 2013

CAP Reform Overview

- Single CMO
  - Ending of Sugar Quota in 2017
  - End of Milk Quota reconfirmed for April 2015
  - Other reforms to Vine, rules for intervention, measures to strengthen position of farmers within the food supply chain

CAP reform overview

- Pillar II
- 6 Priorities (with 17 associated focus areas)
- Three cross-cutting themes
    - Innovation, Climate Change, Environment
  - Greater integration with other EU multiannual programmes
  - Potential to move resources from Pillar I to Pillar II
    - As proposed for Scotland, Wales and England
  - Potential to move resources from Pillar II to Pillar I

CAP Reform Overview

- Assessment of CAP reform from a variety of perspectives will be provided by the presentations and roundtable discussion
- It is obviously very early to be drawing conclusions on impact
- This of course never stops economists (and others) from saying what they think **will** happen and what the impact of the reform **will** be
- Suffice it to say the expected impact of the reform is "contested"
  - I hope you enjoy the day

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CAP 2014:
Analysis using Administrative Data





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CAP 2014: Impetus, Impact and Implementation

AESI Seminar, January 28 2014, Horse and Jockey

Overview

- CAP reform scenarios analysed
- Analytical perspective
- Methodology
  - What we did and how we did it
- Results
- Conclusions
  - Thanks to D/AFM colleagues for assistance and data!
  - All conclusions etc. are mine

What scenarios were analysed

- The set of possible CAP reform implementation scenarios is very large
  - Flexibility a particular characteristic of this CAP reform
- We haven't attempted to analyse all possibilities
  - EC Flat area payment proposal
  - The approximation model (so-called Irish model) + variants
    - Where we have ended up concentrating our analytic effort
- We haven't allowed Pillar II to Pillar I (and vice versa) transfers

Summary of Scenarios Analysed

	Basic	Green	Coupled	Redistributive
MIN	70%	30%	None	None
MID	61%	30%	4%	0%
MAX	57%	30%	8%	0%
MAX cows Only	57%	30%	8%	0%
REDIST	40%	30%	0%	30%

Convergence Model (Approximation) the same in all scenarios, minimum 60% of average BPS, Greening Proportional.

Analytic Perspective

- Analytical Perspective taken can be important
- Do we compare the different reform options within the June 2013 agreement with one another?
- Do we compare CAP reform outcome versus the status quo ante?
- In the slides I present the former perspective is used (mostly)
  - That is comparing different reform options with one another
  - the linked presentation from Fiona Thorne will take the latter

Methodology

aka What we did and how we did it

- Analysis is based on D/AFM administrative data from 2010 (including information from the SPS database, AIMS, Sheep and Goat Census) and Standardised Output values for Ireland from FADN
  - Analysis based on over 130,000 administrative farm records
- Analysis looks at the impact of different CAP reform scenarios outlined on the distribution of Pillar I envelope by
  - farm type
  - farm economic size (SO/farm)
  - farm physical size (ha/farm)
  - partial productivity indicator (SO/ha)
- Analysis provides information needed to analyse redistributive impact of reform using NFS

Analysis with Administrative Data

- Use the D/AFM data and EU farm typology algorithm to allocate each of 130 k farms to a farm type
- Calculate each farm's per ha initial Basic Payment initial unit value (BPS IUV) based on their 2010 SPS total entitlement receipt, eligible area, the 2019 financial ceiling and the scenario being analysed
- Each farm is allocated to one of three (Approximation) categories
  - BPS IUV < 90% of National Average UV
  - 90% <= BPS IUV <= 100% of National Average UV
  - BPS IUV > 100% of National Average UV

Analysis with Administrative Data

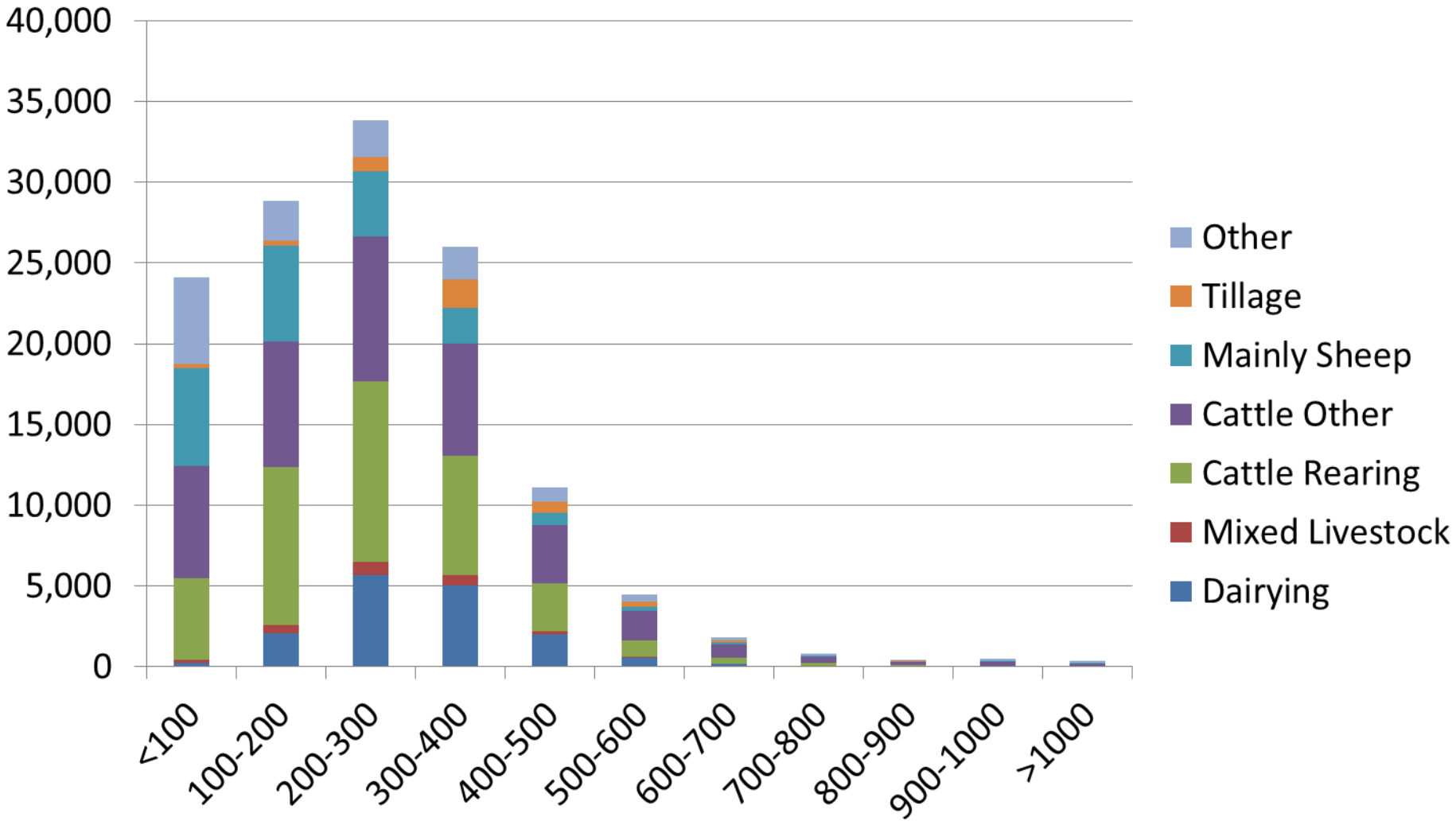
- The value of entitlements on all farms with IUV <90% of the average BPS UV are then increased to the larger of either
  - 60% of the average BPS in 2019
  - The level reached when 1/3 of the difference between the initial unit value and 90% of the average level is reduced
- The sum of gains on all farms with BPS IUV < 90% of the average BPS UV is then calculated
- This total is used to calculate the reduction in the IUV of those farmers with BPS IUV >100% of the average BPS IUV
  - The reduction in these UV is proportionate to the difference between their IUV and the average UV
- For farms with 90% ≤ BPS IUV ≤ 100% of average convergence doesn't lead to change in BPS between 2015 and 2019

Analysis with Administrative Data

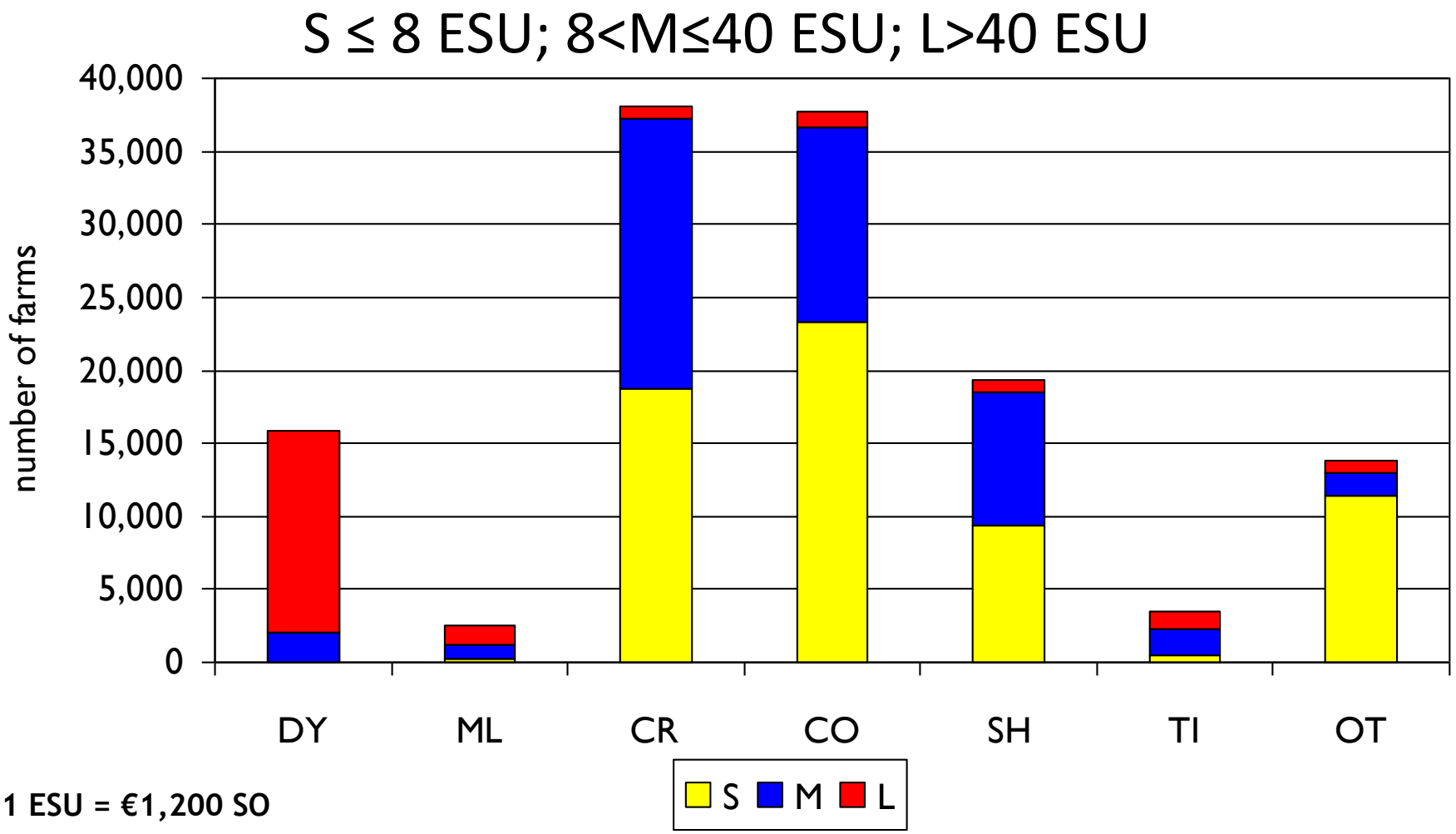
- Then depending on the scenario each farm's receipts under the GP, VCP and RP Schemes are calculated
- In all scenarios with VCP, subsidy is paid to suckler cows and ewes on a per LU basis
- In all scenarios Greening proportional to Basic Payment
- Lack of data precludes analysis of
  - Mandatory Young Farmers' Scheme
  - Optional Areas of Natural Constraint (ANC) and Small Farmers' scheme
- Focus is then on outcomes in 2019 under different scenarios
  - Excludes consideration of National Reserve
- Greening is assumed to be achieved costlessly

RESULTS

SPS/ha Population X Farm Types

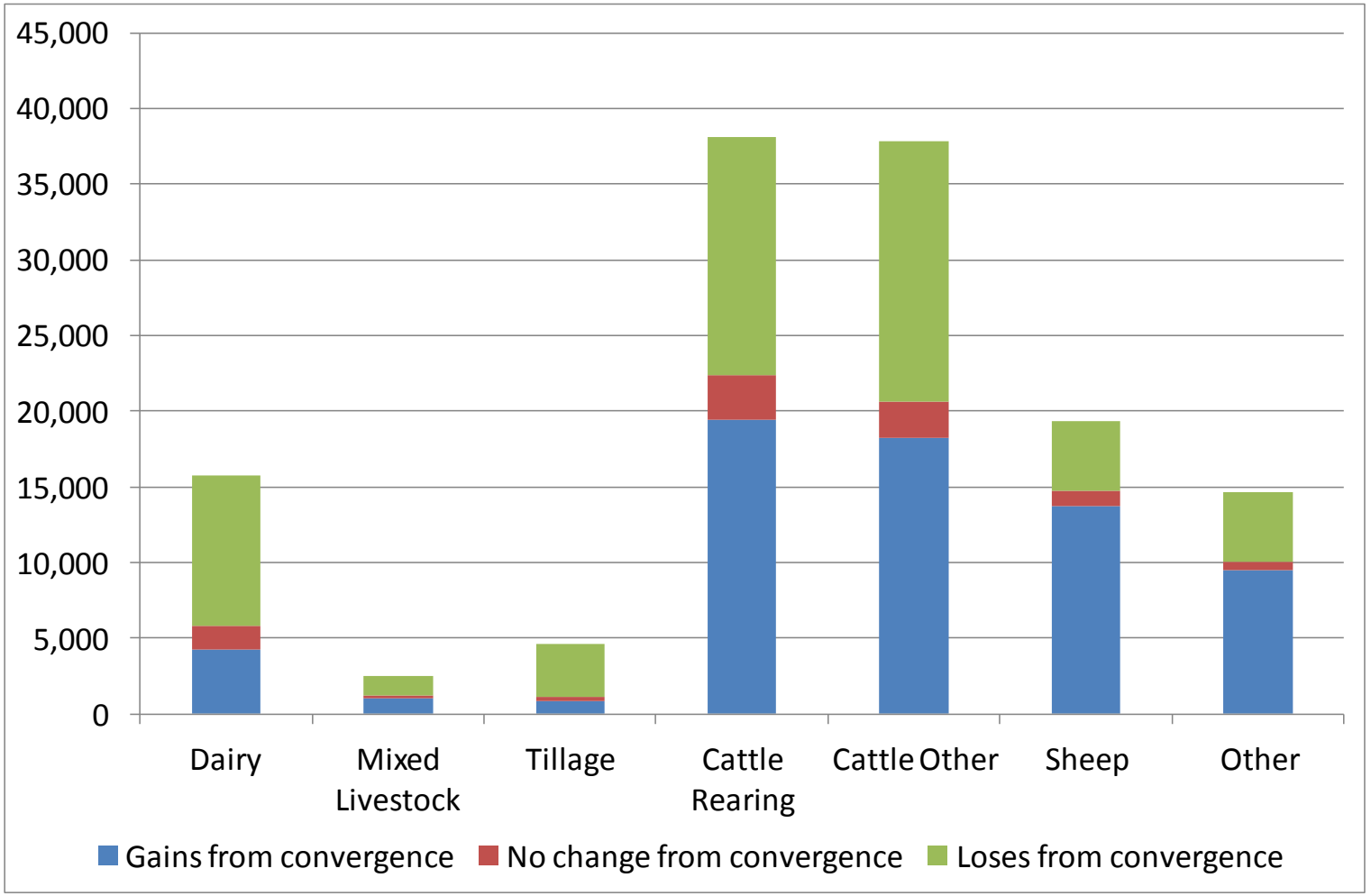


Number of Farms in Each Farm System by Economic Size

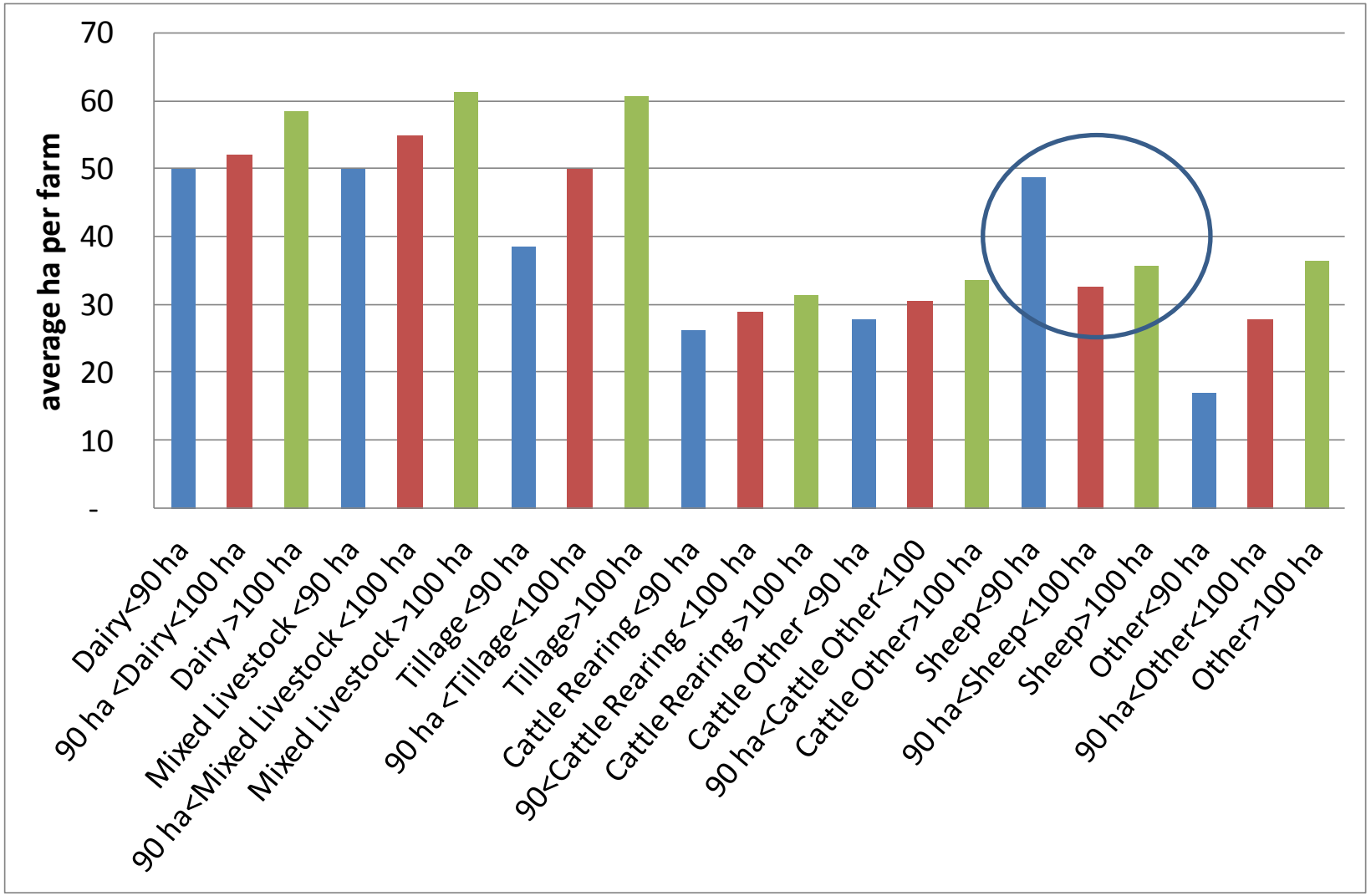


1 ESU = €1,200 SO

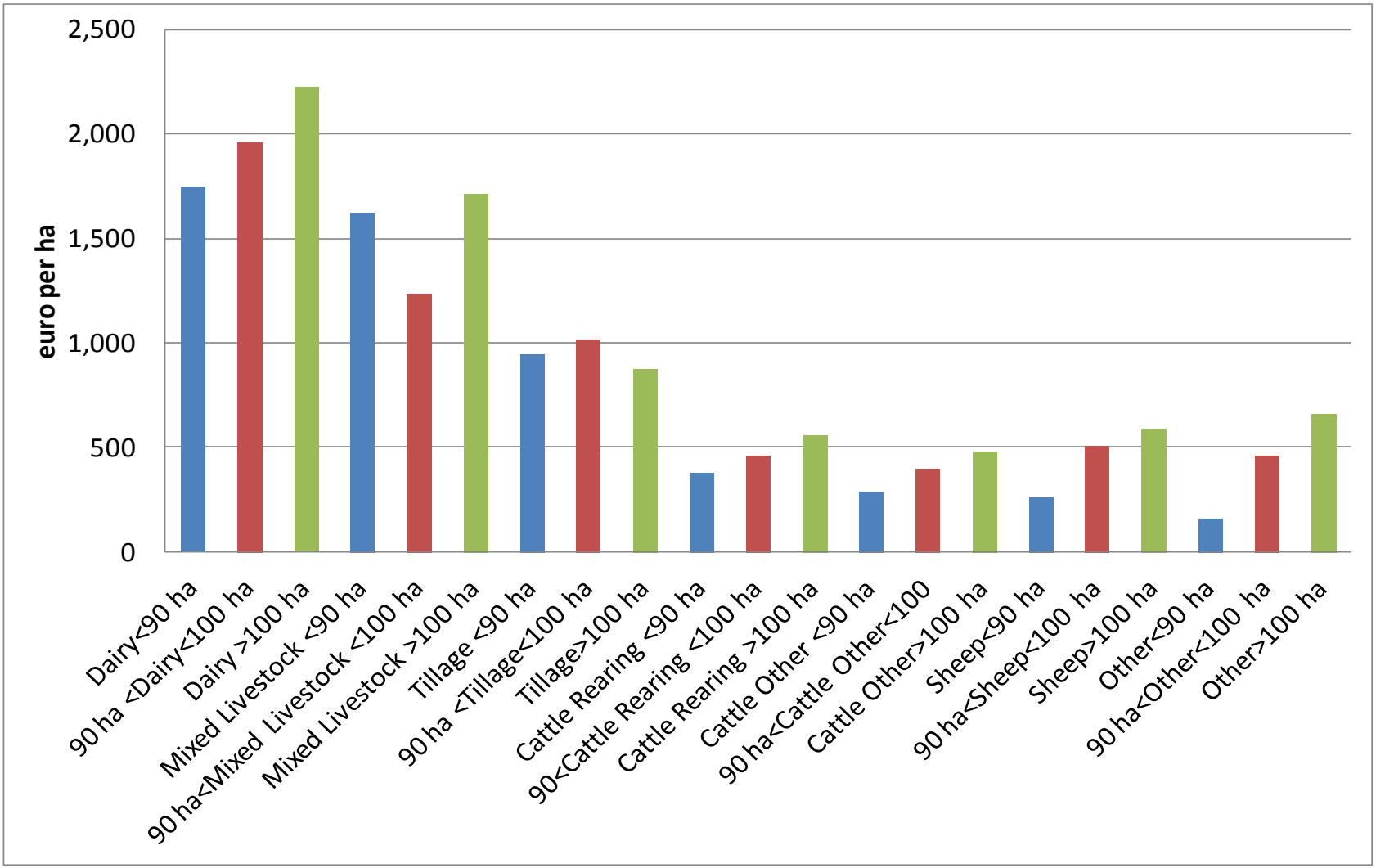
Farms by Farm Type and Approximation Model Category



Average farms size by Farm Type and Approximation Model Category



Standard Output per ha by Farm Type and Approximation Model Category



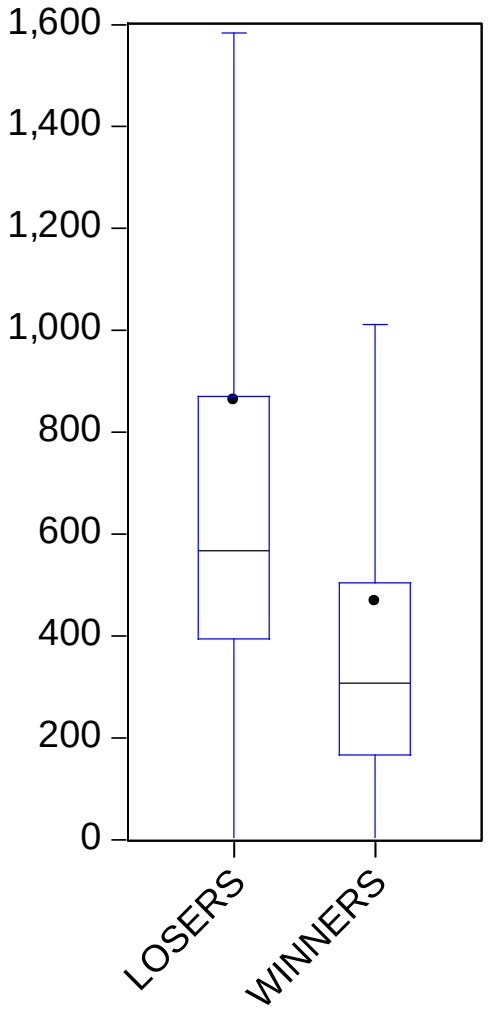
CAP reform and Productivity

- What is meant by productive?
  - We use it here in a (very) partial sense Standard Output/ha
  - Farms that are unprofitable can/are called “productive”
- On average reform takes income subsidy from farms with higher SO/ha and gives additional subsidy to farms with lower SO/ha
- Are all losers “productive” and winners “unproductive”
  - No as most of us know averages are dangerous
  - Many of those “winning” in the flat rate game are more “productive” than those “losing”

CAP reform and Productivity

- Box plots good way of summarising data on thousands of farms
  - Note not drawn with width indicating relative size of the categories graphed
  - Majority of farmers in cattle systems
- Box in middle is the interquartile range (IQR) and whiskers are 1st Quartile minus 1.5*IQR and the 3rd quartile plus 1.5*IQR
- Median is the horizontal line in the box and the dot indicates the arithmetic mean

SO/ha Winners vs. Losers

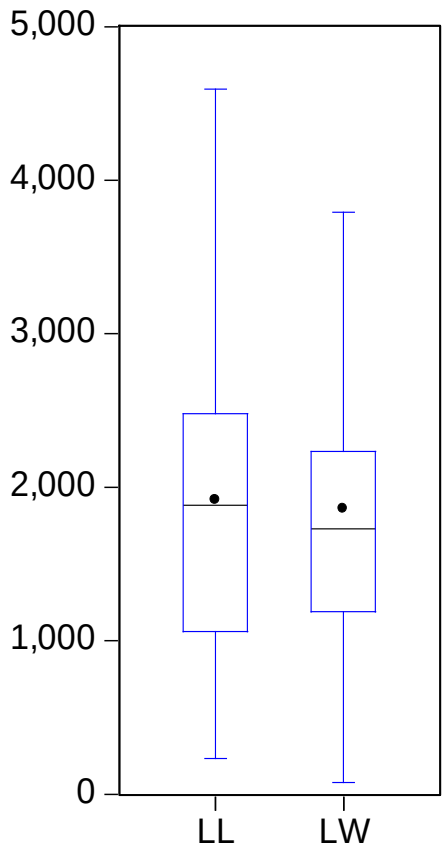


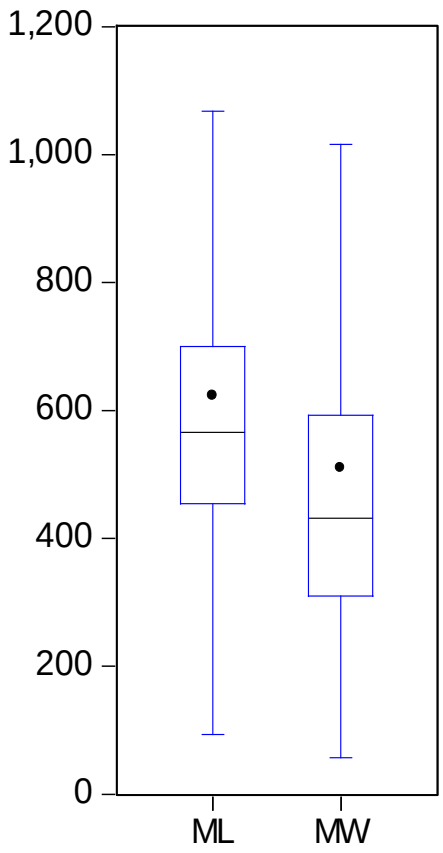
- Average and median productivity per ha of losers > winners
  - Illustrates importance of what measure of central tendency is used
  - Median and Mean are far apart
- IQR of SO/ha of winners and losers overlap
- Implies that there are many farms that win that have higher standard output per ha than many of the farms that lose

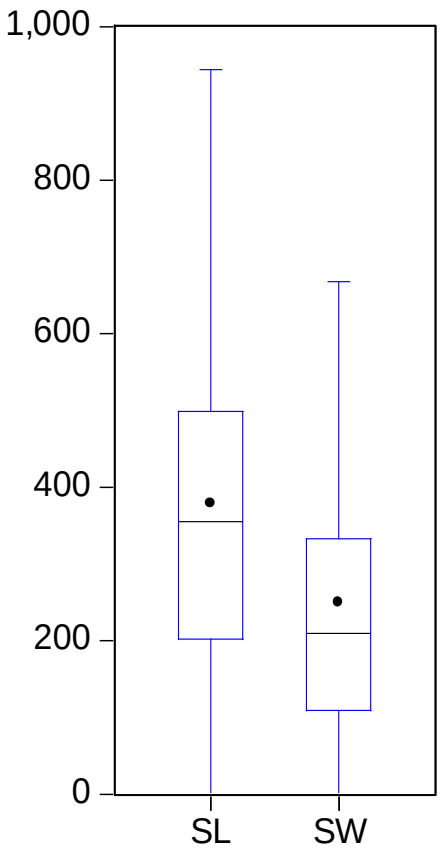
Productivity by Farm Economic Size and Farm System

- Does looking at productivity of farms of different economic sizes and different farm types offer insights?
  - Differences in productivity between winning and losing farms decreases with economic size
  - Clear that for nearly all farm systems average (and median) productivity is higher on losers
  - Extent of overlap of IQR between winners and losers varies across farm systems but in most cases is substantial

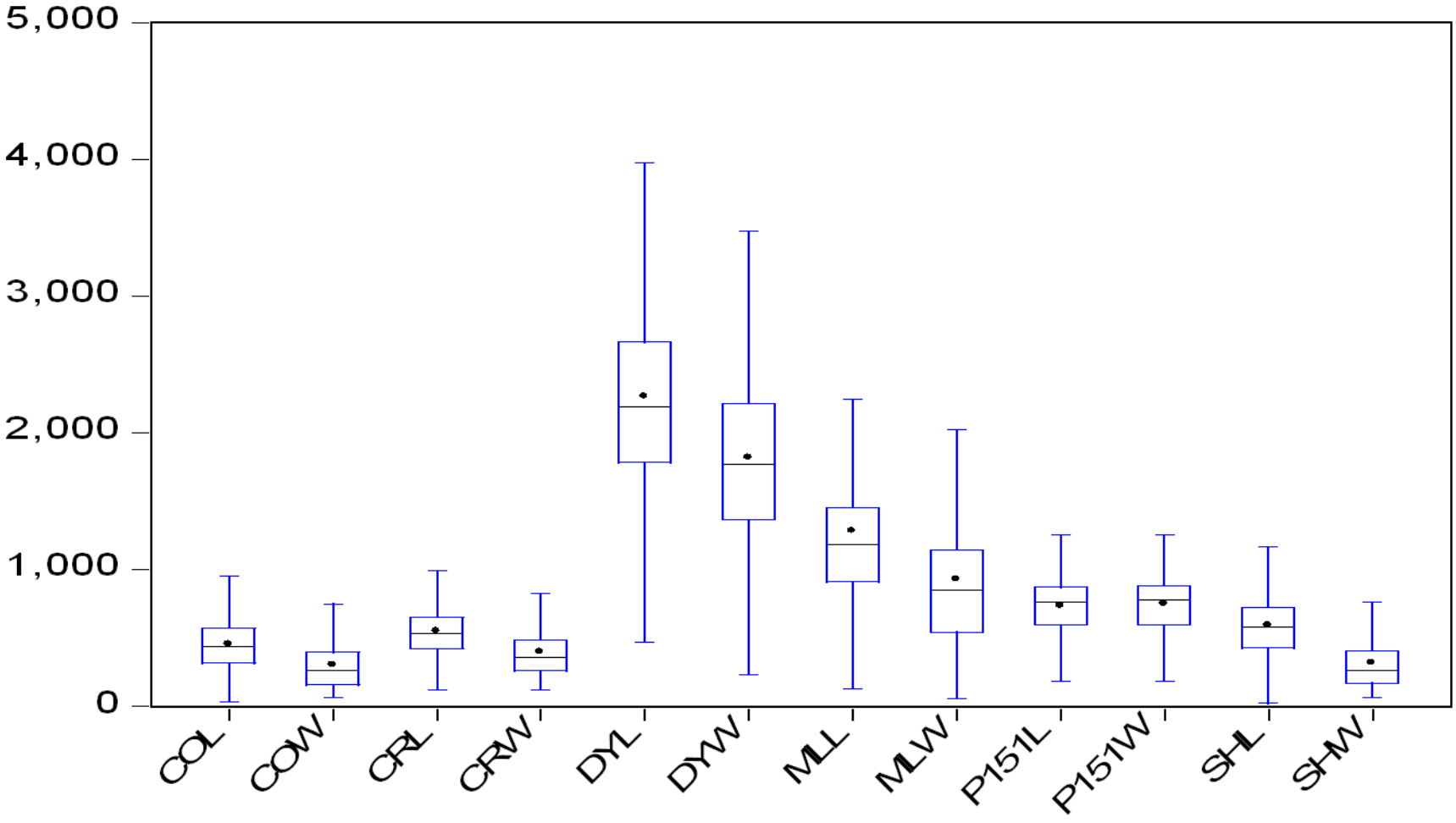
SO/ha Winners vs. Losers by Economic Size



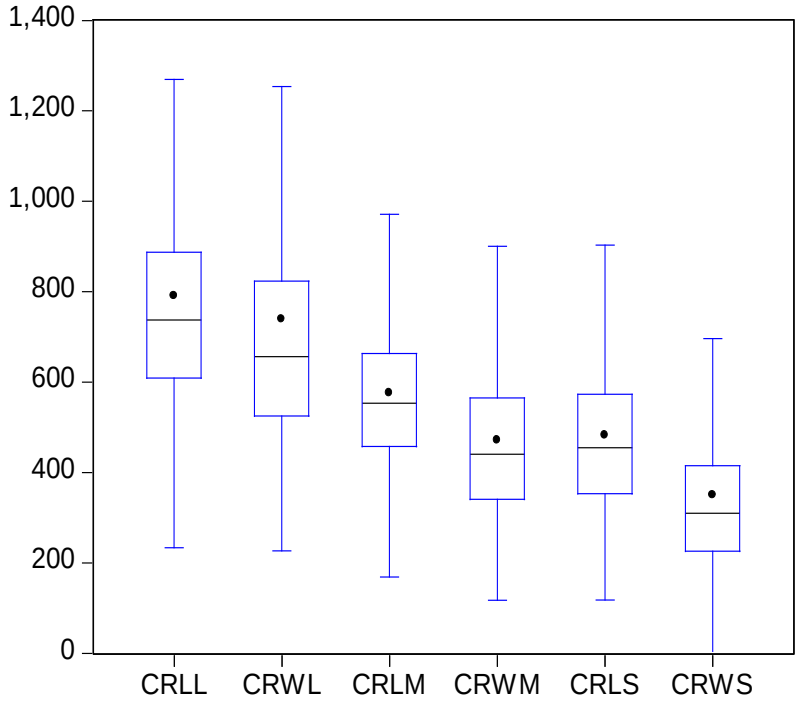


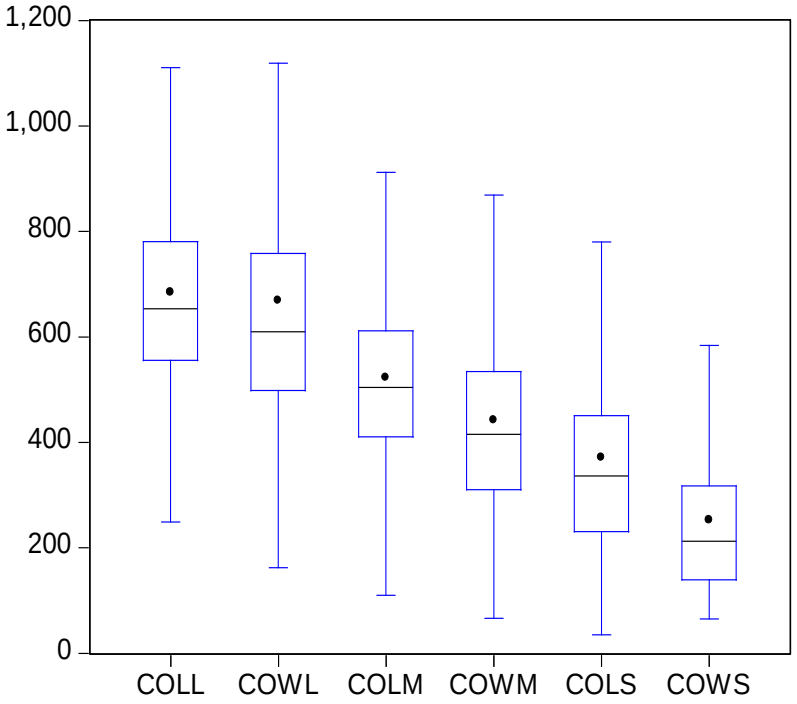


SO/ha winners vs. losers by farm type

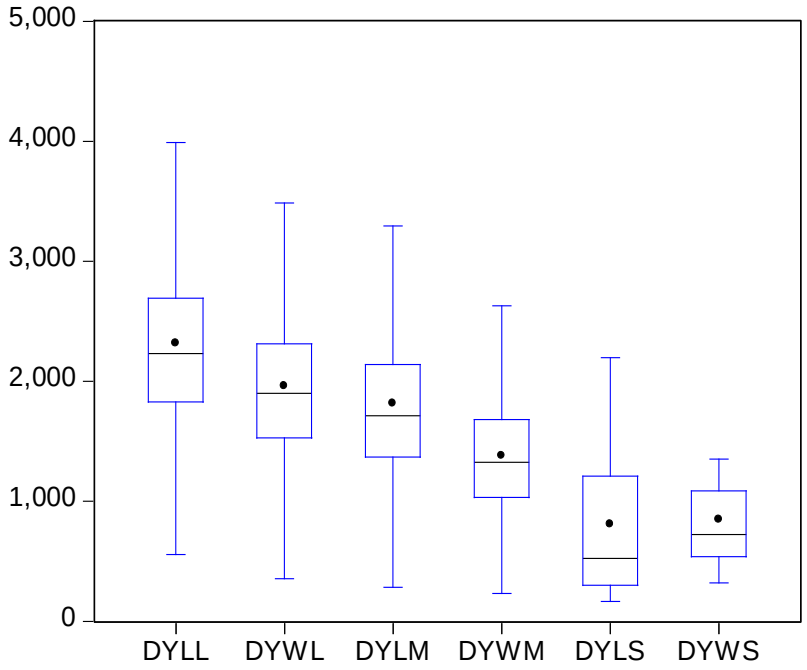


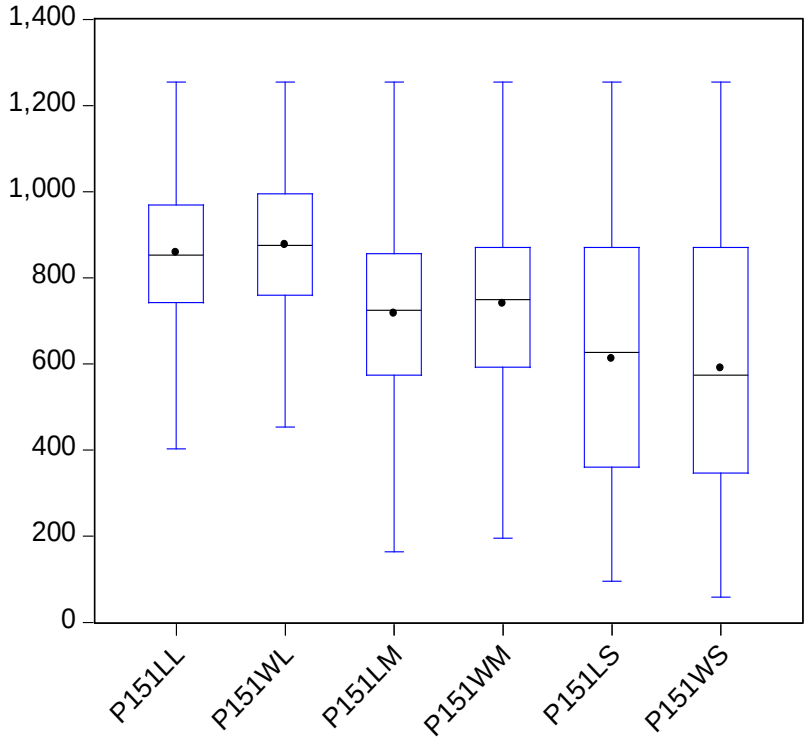
SO/ha Winners vs. Losers x Farm Type x Economic Size



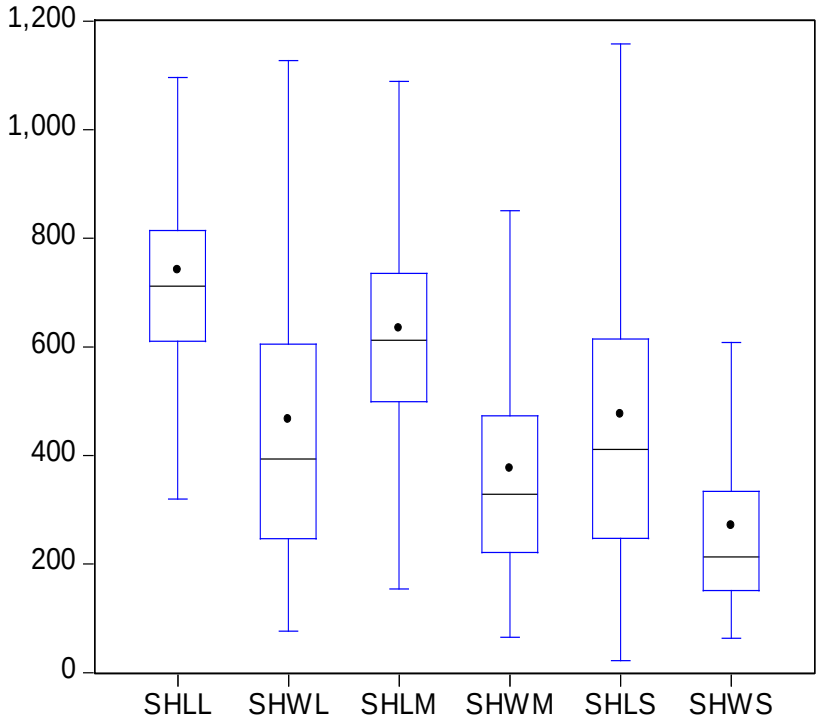


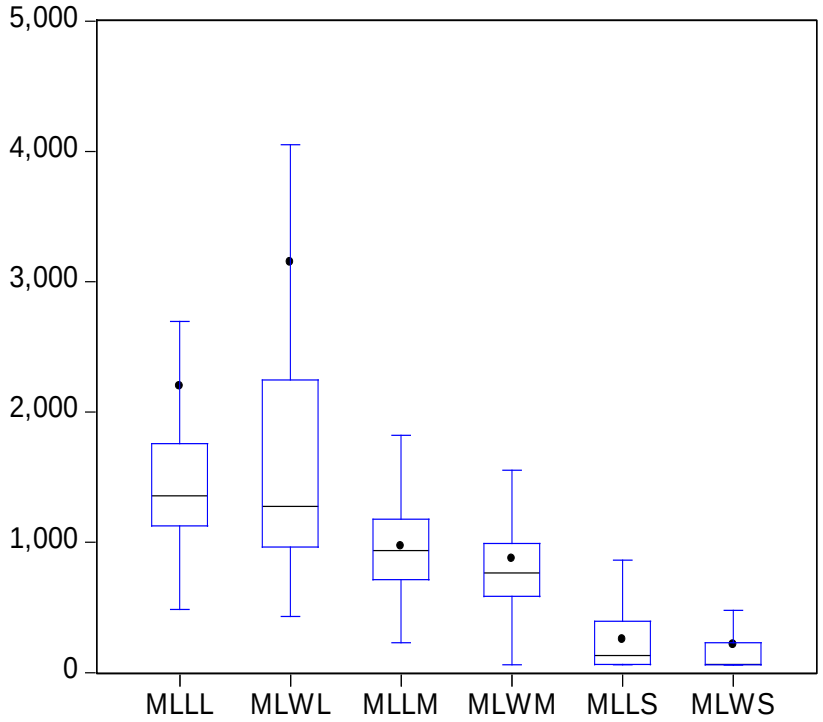
SO/ha Winners vs. Losers x Farm Type x Economic Size





SO/ha Winners vs Losers x Farm Type x Economic Size

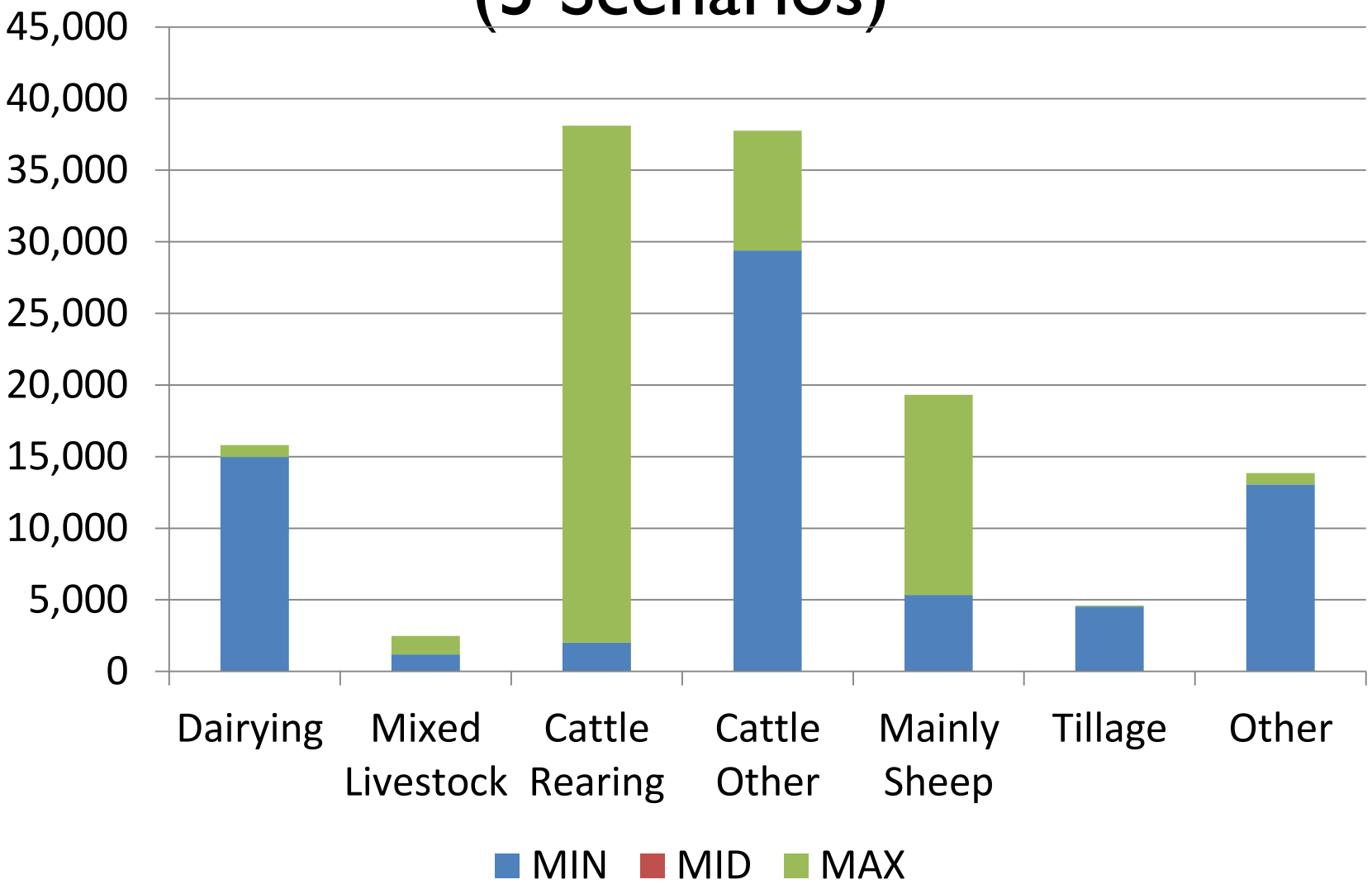




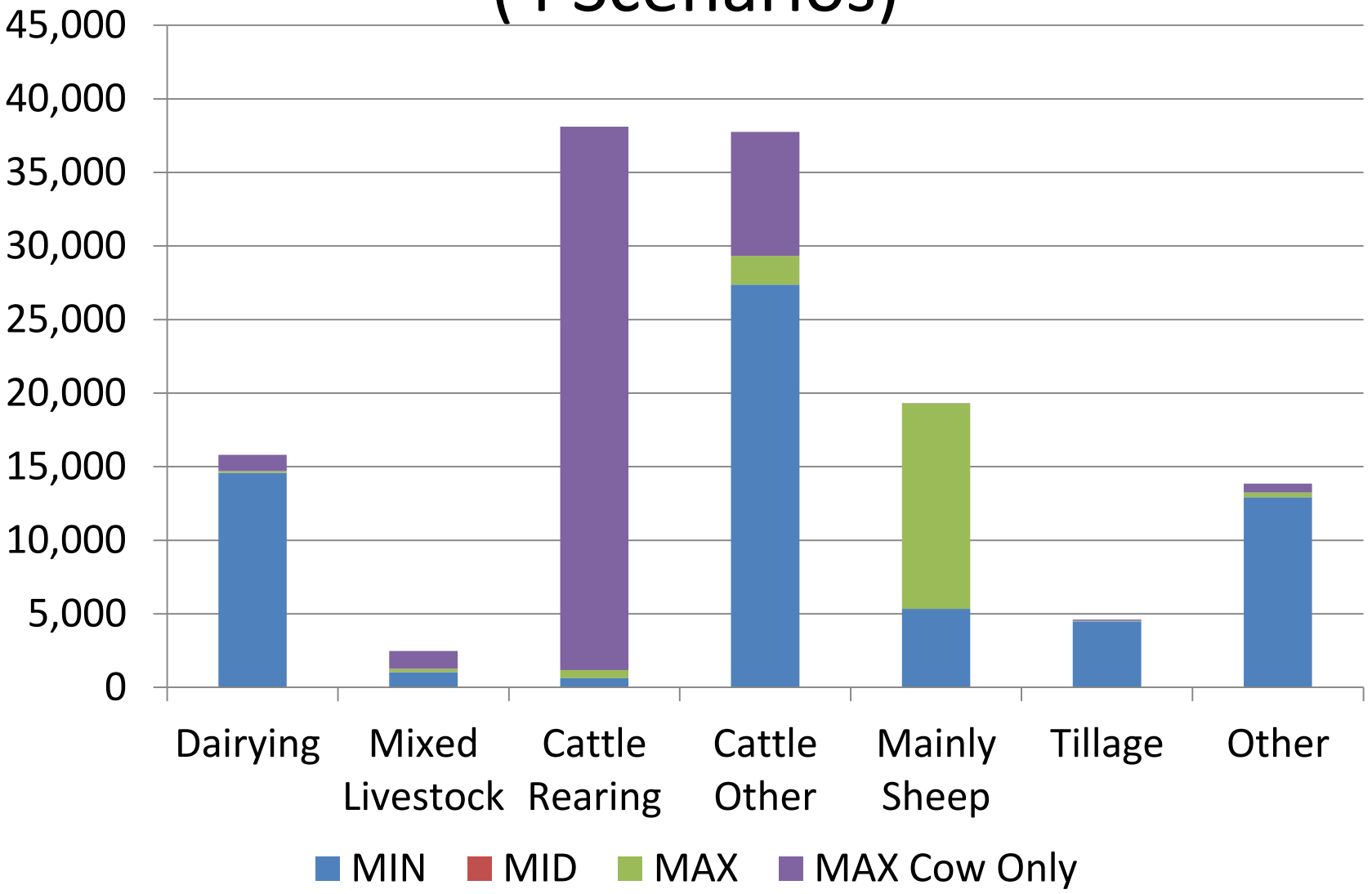
Preferred CAP implementation

- Scenario A is preferred to scenario B if it leaves a farmers with a higher level of direct income support
- Very simple comparison rule
  - Ignores other issues that may be important
- We first compare three scenarios MIN, MID and MAX
  - Approximation model combined with coupled payments linked to suckler cows and ewes
- Then add MAX Cows Only
- Finally we add the Redistributive Payment Scenario

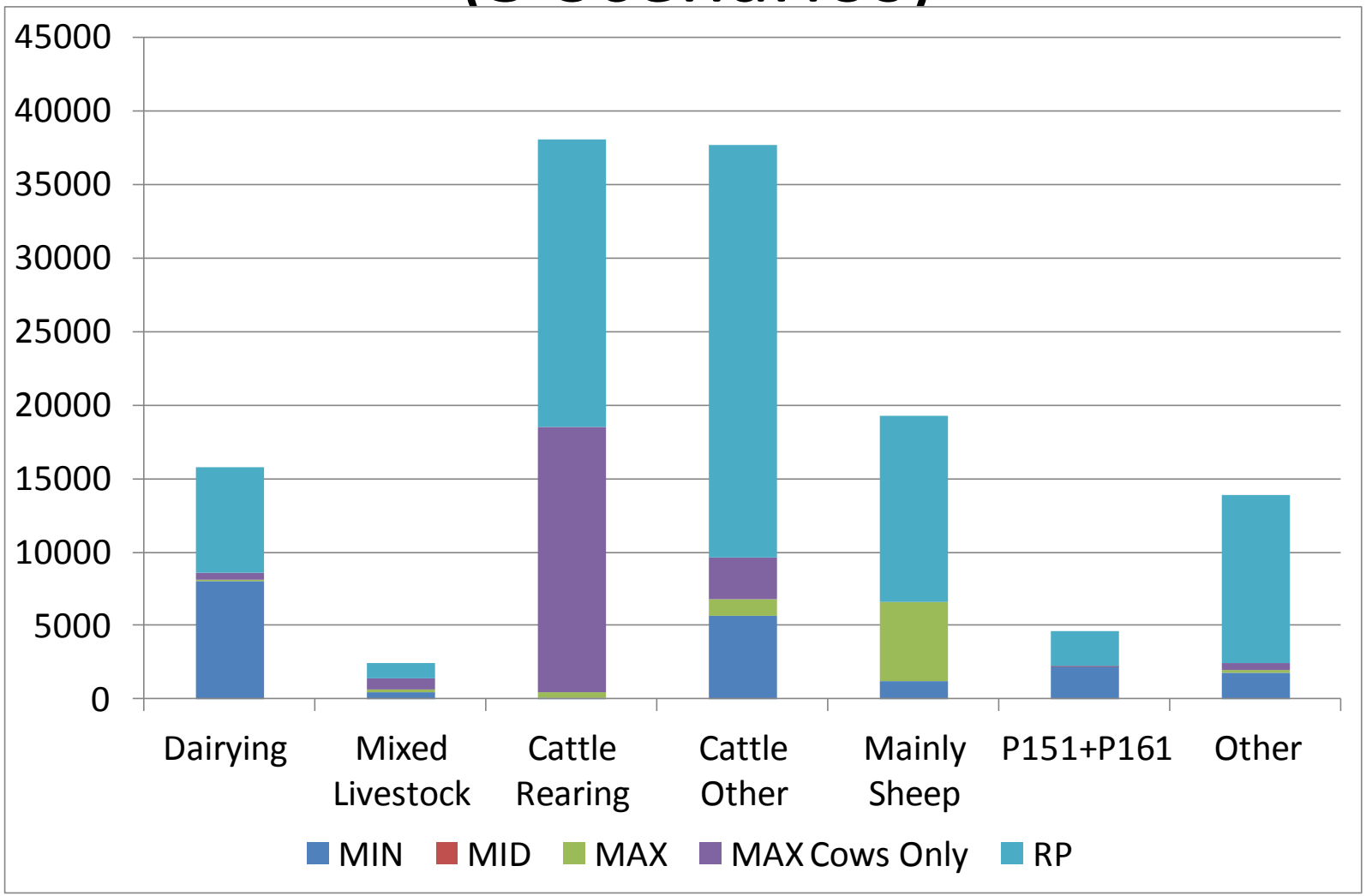
Preferred Scenario by farm type (3 Scenarios)



Preferred Scenario by farm type (4 Scenarios)



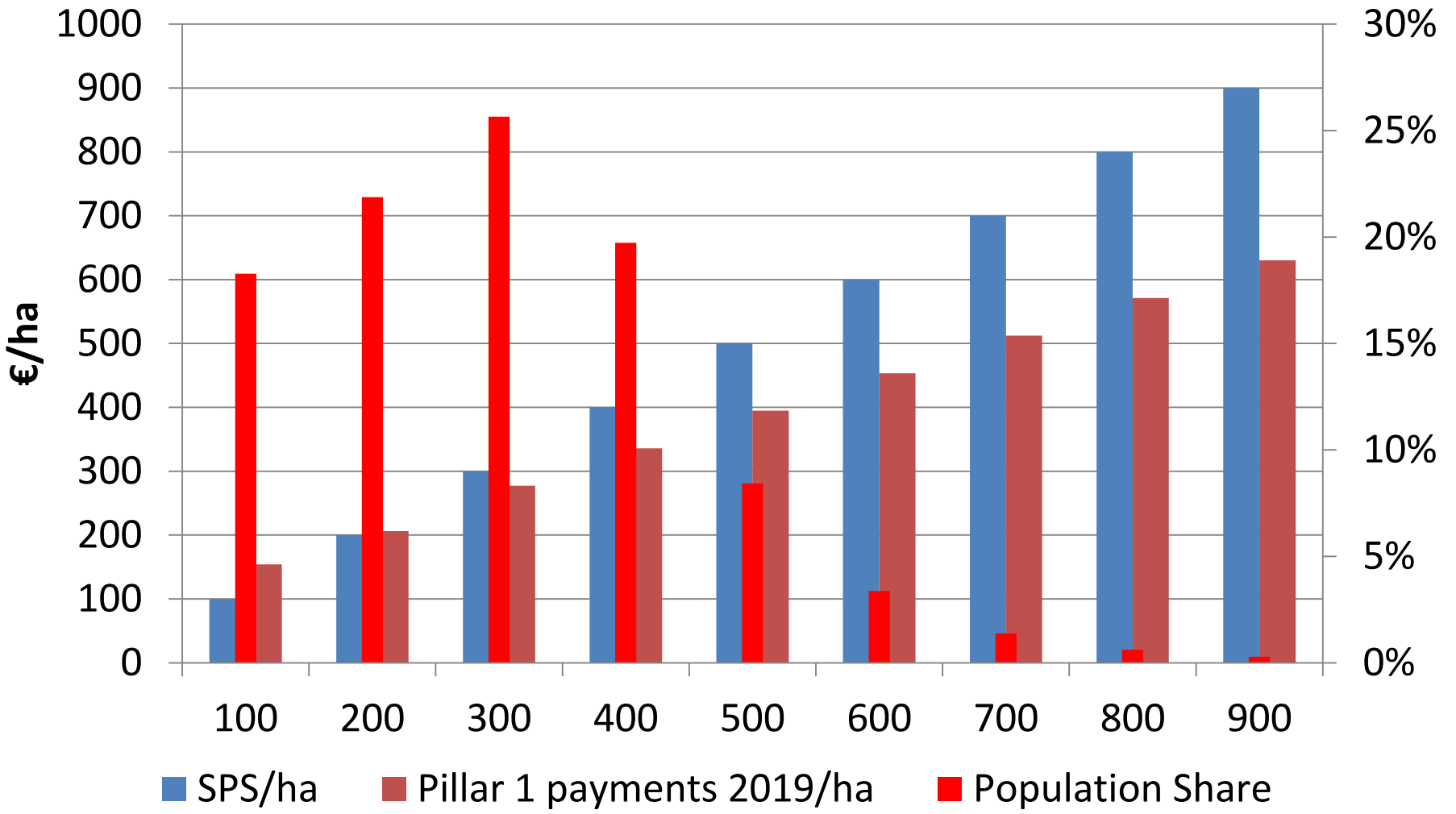
Preferred Scenario by farm type (5 Scenarios)



Ireland's chosen scenario: MIN

- The CAP Reform implementation option chosen by the Irish Government was MIN
  - With maximum allocation to young farmers scheme (2%)
  - Possibly with a coupled protein crop payment (2%)
- Fiona Thorne will illustrate the impact of this outcome, we provide for each scenario
  - BPS average levels and the various thresholds towards which farms' entitlement values converge
  - Our analysis provides the proportionate reduction on payments above the average levels

MIN: 2010 SPS & Total Pillar I payments 2019



Ireland's chosen scenario: MIN

- How does the distributional outcome under MIN compare with the status quo ante under the SPS and a Flat Rate outcome?
  - Recalling that an objective of the reform was to create a more equal distribution of direct income support

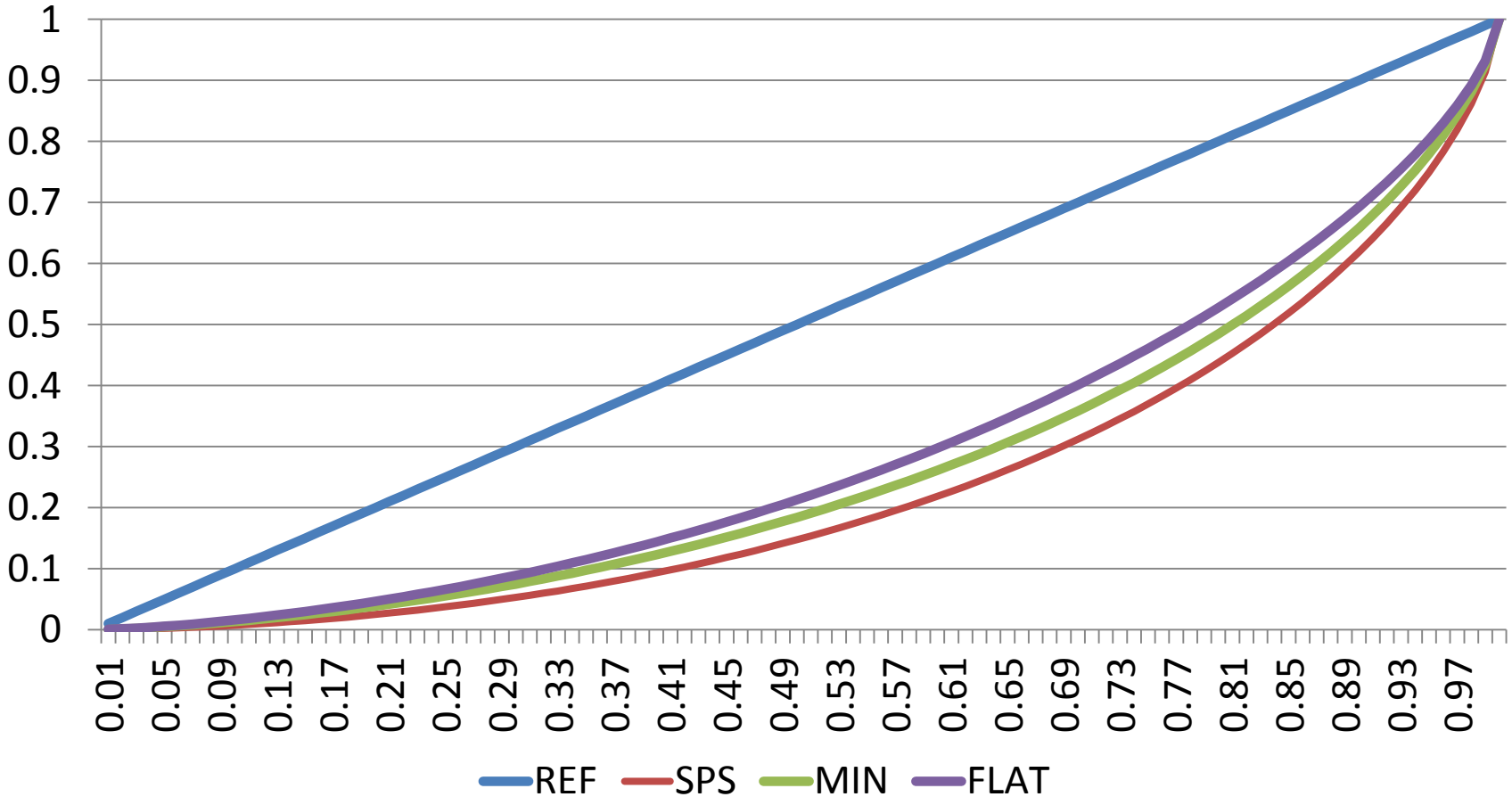
Distributional Impact

- Using Gini Coefficients to measure the distribution of Pillar I income support payments across the farm population and within the different farm type sub-populations
  - Gini coefficients calculated using Milanovic's (1997) approximation
  - The lower the Gini coefficient the more equal the distribution
- Not measuring income this is only equality of Pillar I subsidies
  - We also do not including Pillar II payments (ANC, Agri-Env)
- Comparing outcomes under MIN, status quo ante (2010 distribution) and Flat Area Payments model

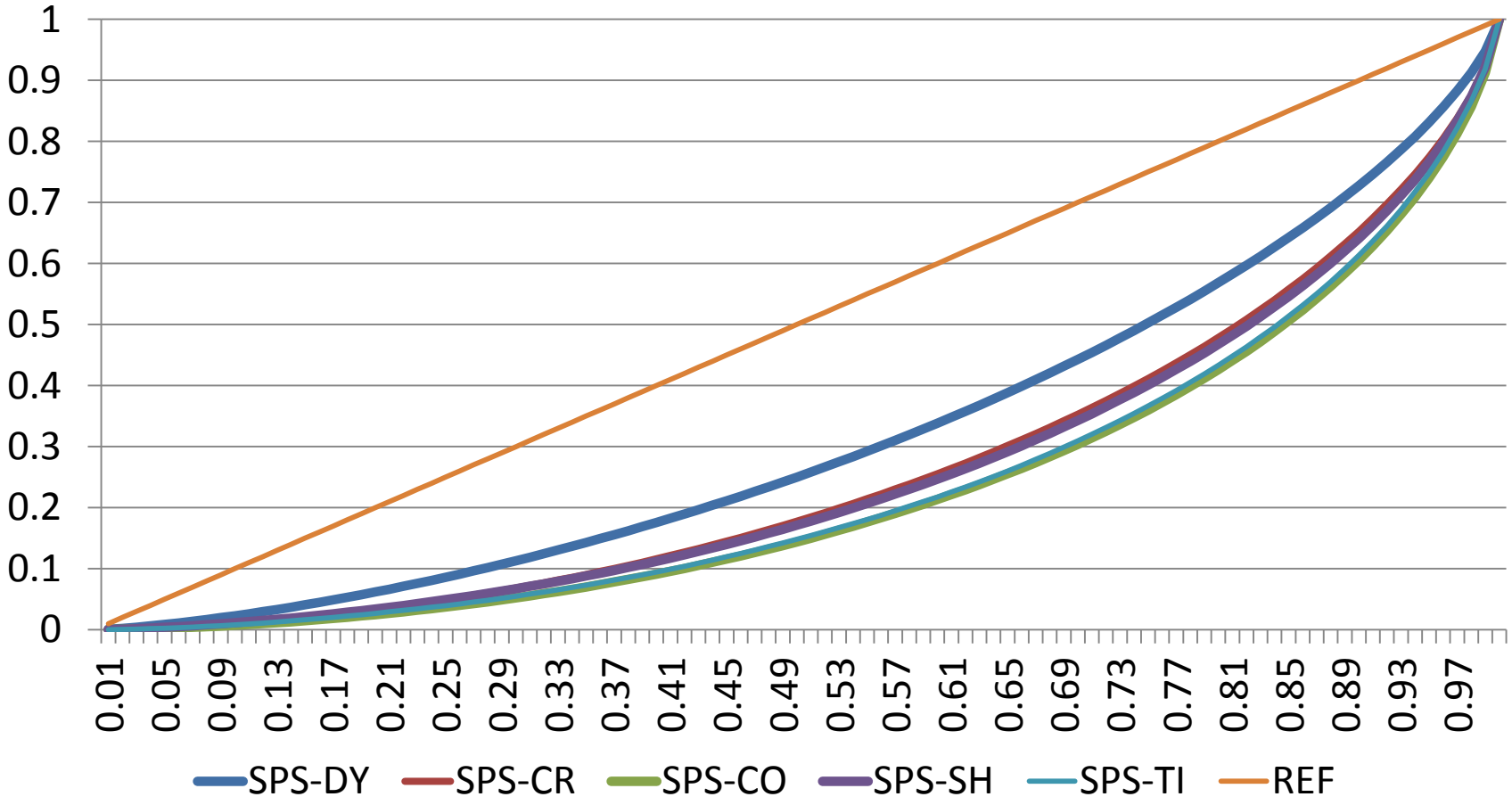
Gini Coefficients for all farms and within Farm System types

	SPS 2010	MIN	FLAT
All Farms	**0.43022**	**0.40720**	**0.39098**
Within system distribution			
Dairy	*0.36778*	*0.33380*	*0.28591*
Cattle Rearing	*0.48200*	*0.41842*	*0.36144*
Cattle Other	*0.53949*	*0.46892*	*0.40868*
Sheep	*0.49280*	*0.45160*	*0.46018*
Tillage	*0.53102*	*0.50703*	*0.47216*

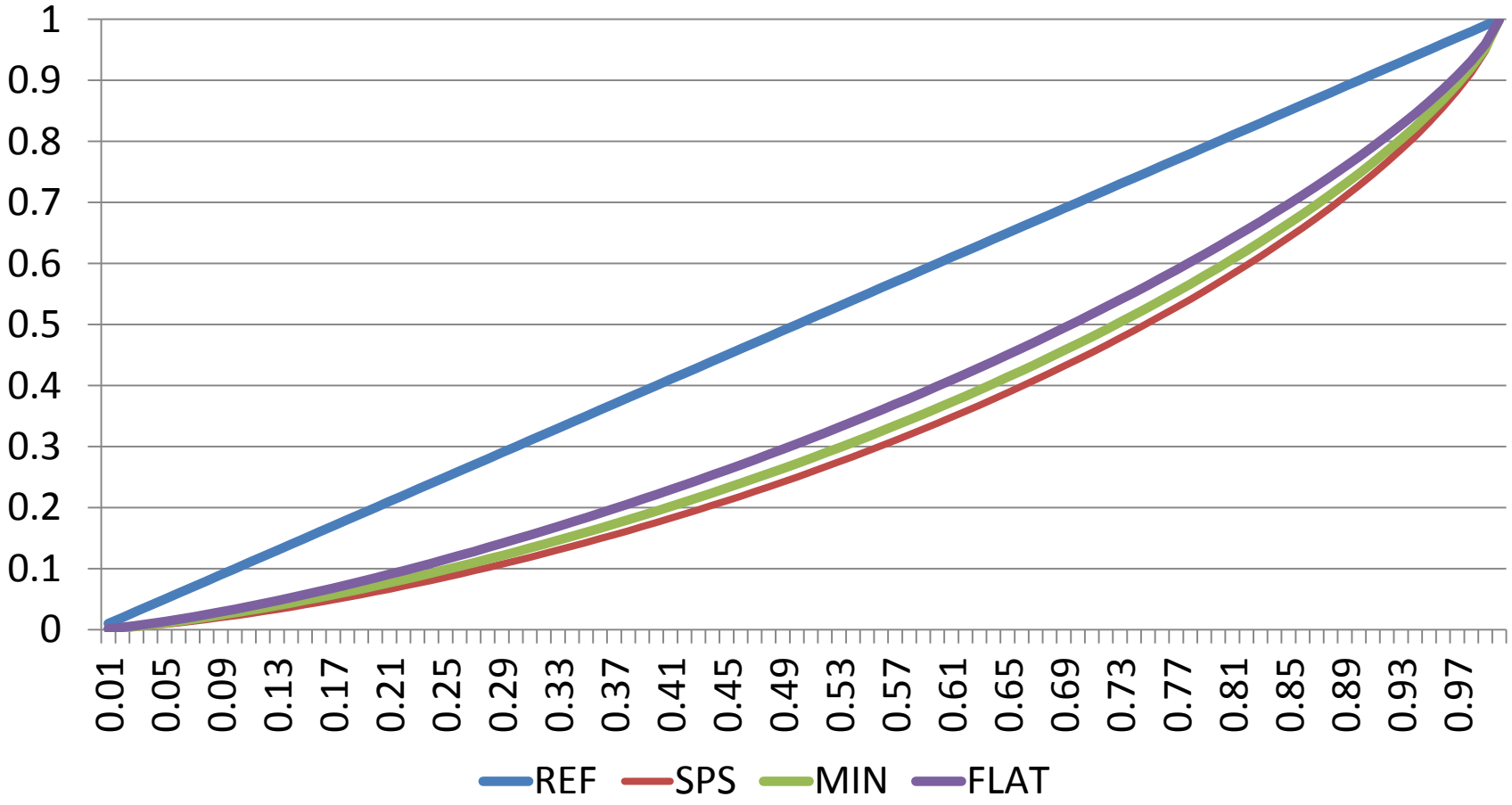
Lorenz Curves: All Farms



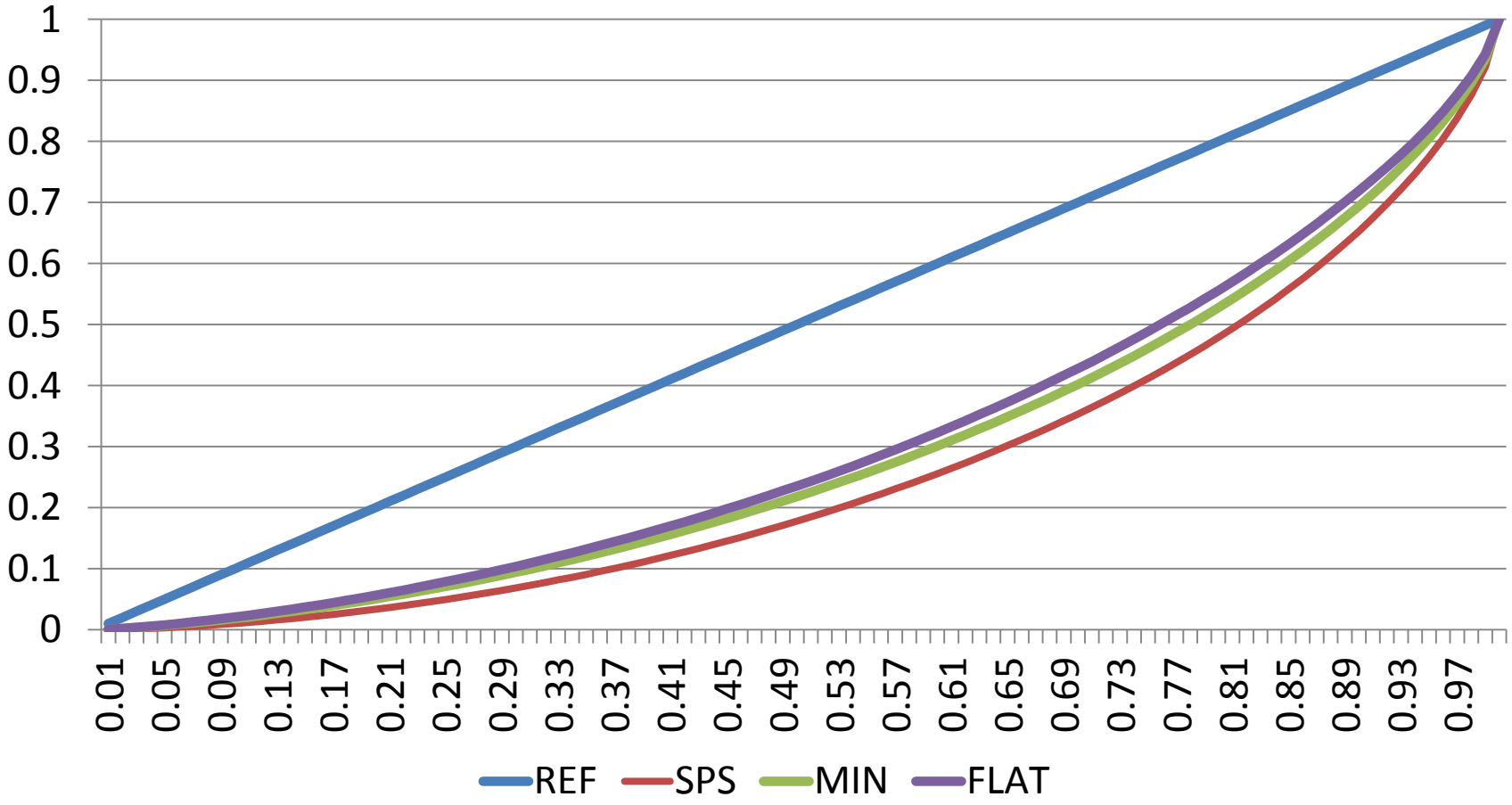
Lorenz Curves: Within Farm Systems Inequality under SPS



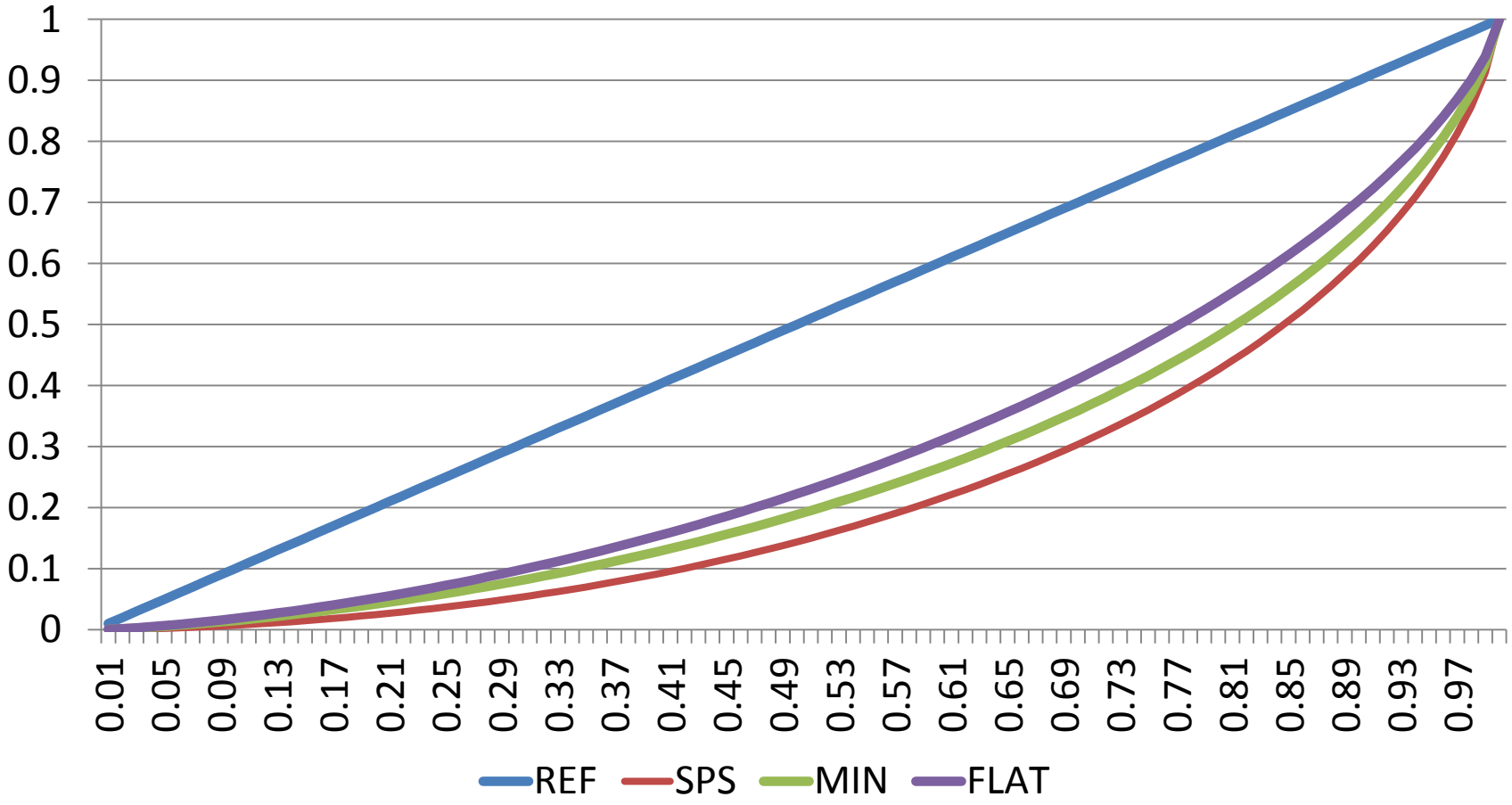
Lorenz Curves: Dairy



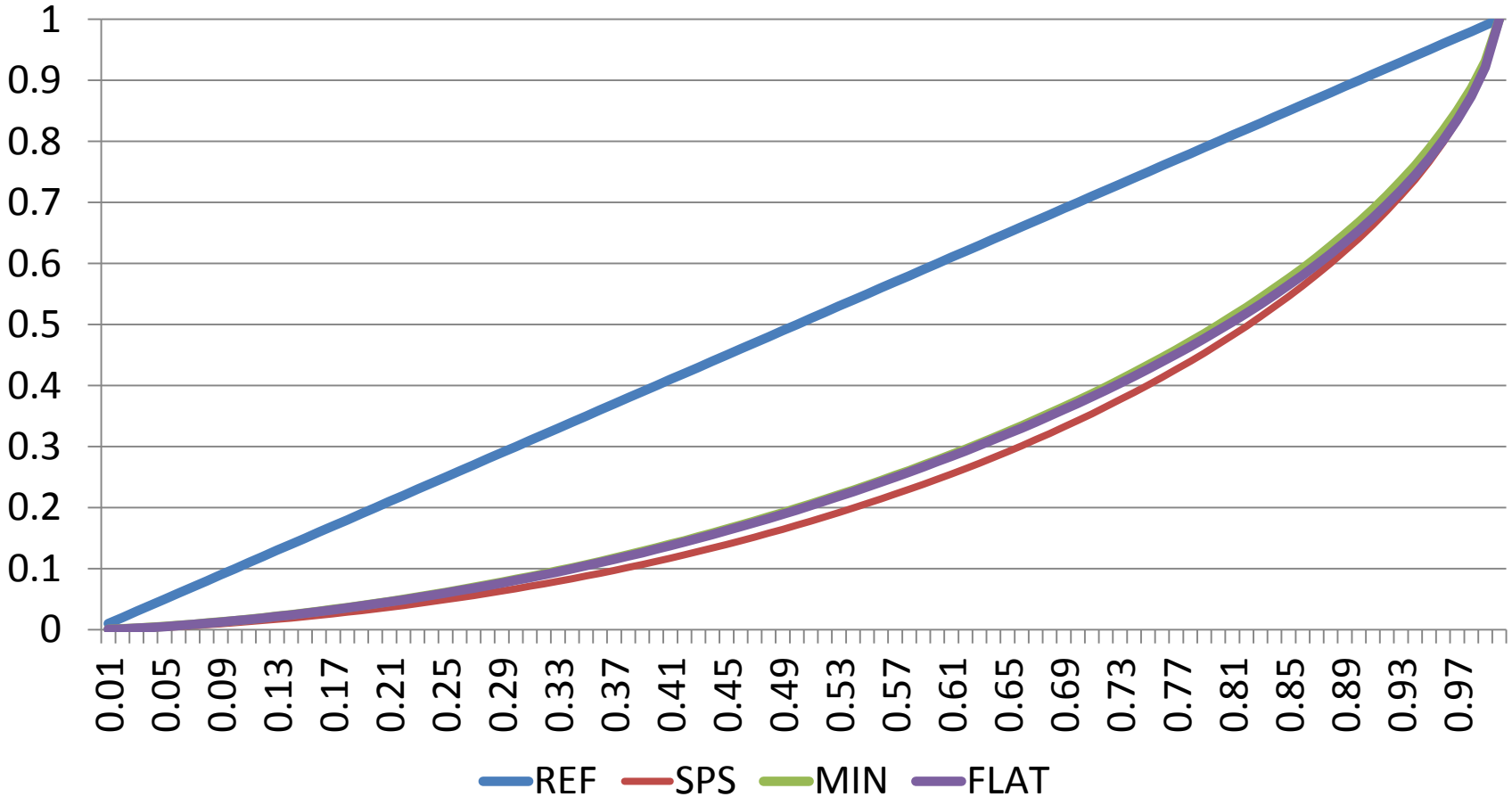
Lorenz Curves: Cattle Rearing



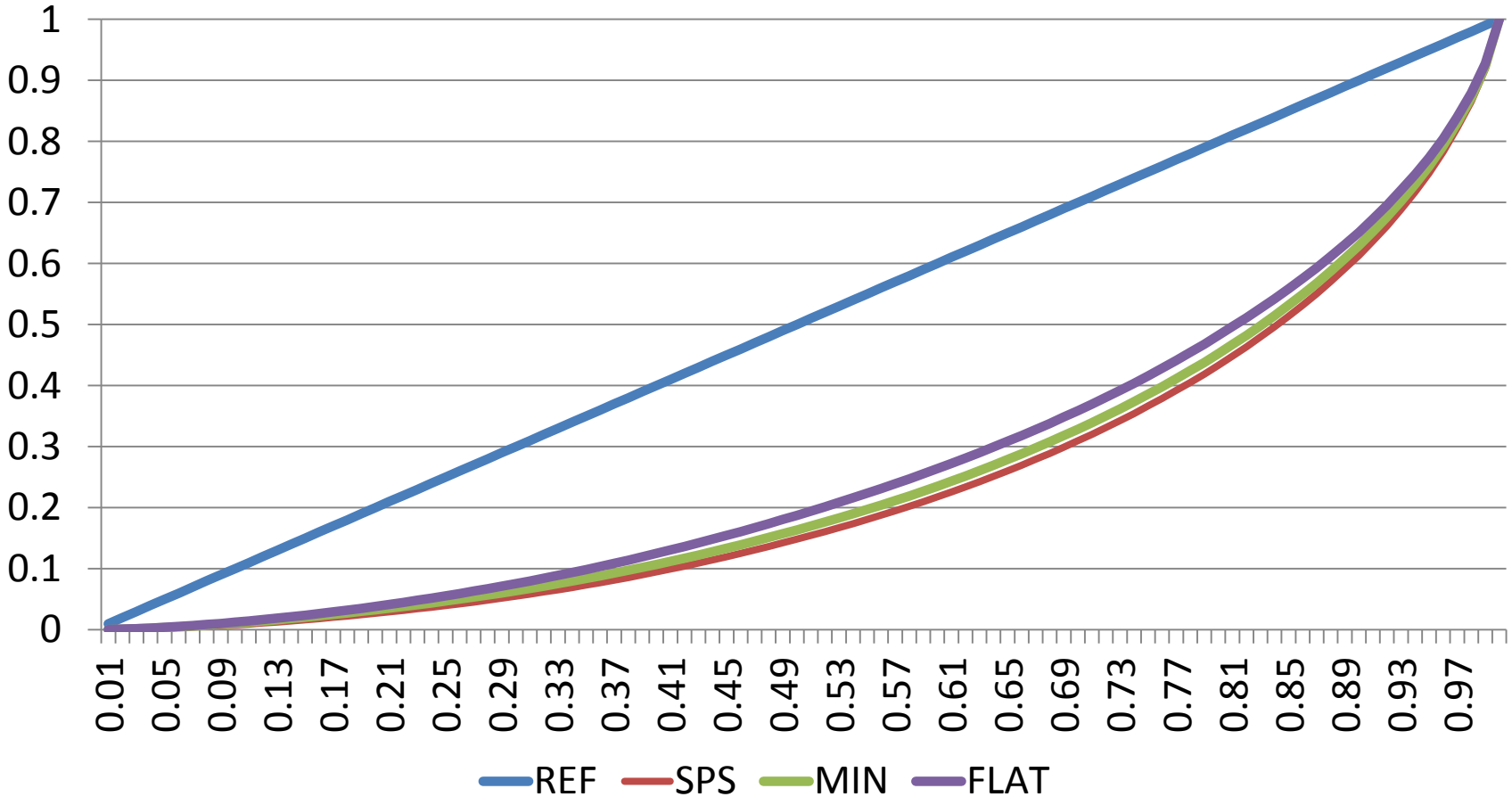
Lorenz Curves: Cattle Other



Lorenz Curves: Sheep



Lorenz Curves: Tillage



Proportion of Pillar I spending going to bottom 50% of recipients

	SPS 2010	MIN	FLAT
All Farms	**14.73%**	**18.41%**	**21.27%**
Within system distribution			
Dairy	*24.99%*	*27.23%*	*30.45%*
Cattle Rearing	*17.78%*	*21.80%*	*23.55%*
Cattle Other	*14.39%*	*18.84%*	*22.25%*
Sheep	*17.11%*	*19.87%*	*19.62%*
Tillage	*14.82%*	*16.35%*	*18.74%*

Conclusions I

- The analysis presented can't address income impact
  - The next presentation will present some of that story
- "Preferences" vis à vis the reform scenarios unsurprising
  - Those systems with on average larger SPS entitlement values per ha prefer reform implementations that are less redistributive
  - The converse of course is true for farm systems with on average lower SPS entitlement values
- Zero-sum nature of the reform creates "winners" and "losers"
  - MIN - The implementation choice in Ireland has limited the losses of the "losers" and also limited the gains of the "winners"
  - Note our analysis on looks at Pillar I distribution only no account taken of LFA/ANC payment distribution under Pillar II
  - No account taken of possible production impact of different implementation options

Conclusions II

- Simple narratives of productive losers and (implicitly) less productive or unproductive winners from CAP reform misleading
  - There are winners with output per ha levels that are higher than on many losing farms
  - Many of the "winners" are farming on inherently less productive land (not their fault, they may be as productive as is technically feasible) – are these farmers less deserving of decoupled direct income support?
- The reforms in general and the implementation chosen makes the distribution of direct income support more equal
  - Min less equal than FLAT
- The reforms by linking income support to entitlements (land) leaves those with more land with more direct income support

Future Work

- Looking more deeply at the impact of CAP reform on income (and not just direct payment receipts) inequality
  - Take into account Pillar II schemes
  - Look at how Ireland compares with other MS using FADN data
- Impact of the reforms on factor markets
  - particularly agricultural land markets (sale and rental)
- Empirical analysis of the production impact of limited redistribution will have to wait until we see what farmers do
  - Experience with decoupling suggests that conservatism in forecasting impact of policy change in Irish agriculture is probably wise!

Thank-you