



DUCKER WORLDWIDE

Advancing Growth

Prepared for:
The International Powered Access
Federation



IPAF
Powered Access
Rental Market Report
USA – 2012

April 2012

IPAF Powered Access Rental Market Report - USA

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FOREWORD

IPAF

- ❑ The International Powered Access Federation (IPAF) promotes the safe and effective use of powered access equipment worldwide. IPAF is a non-profit member organization that represents the interests of rental companies, manufacturers, distributors, users and training companies. It was set up in 1983 and celebrated its 25th anniversary in 2008.
- ❑ The IPAF training program for platform operators is certified by TÜV as conforming to ISO 18878. More than 100,000 people are trained each year through a worldwide network of over 500 IPAF-approved training centers. Successful trainees are awarded the PAL Card (Powered Access License), the most widely held and recognized proof of training for platform operators. In North America, training is managed by IPAF's North American subsidiary, AWPT.
- ❑ Membership of IPAF is open to users of platforms, manufacturers, distributors, rental and training companies. Members enjoy access to practical information and a growing portfolio of member services. They also have the chance to influence the legislation and regulations that govern platform use. More information can be found at www.ipaf.org.

Additional copies of this report can be ordered at www.ipaf.org or from your nearest IPAF office.

IPAF has also published the IPAF European Powered Access Rental Market Report 2012 – details available at www.ipaf.org or from your nearest IPAF office.

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Ducker

- ❑ Ducker Worldwide is a primary research-led industrial market research and consulting company, dedicated exclusively to ad hoc business-to-business research and particularly specializing in the markets for construction equipment and materials both in Europe and the US.
- ❑ Ducker benefits from solid industry experience and a highly international team with the ability to survey global markets at a local level:
 - Product and industry expertise: experience in the AWP and equipment rental markets through several projects covering access equipment and other types of construction machinery at all levels of the value chain including rental as well as distribution and contracting.
 - International approach applied locally: with a team of permanent native consultants working out of offices that reach across the US, Europe and Asia, Ducker prides itself on the fact that all fieldwork is completed in the respondent's native language by in-house consultants and by Ducker's internal multi-lingual call-centers.
 - Methodological expertise: on-going involvement in strategic consulting within areas such as market sizing and segmentation, distribution structure, competitive positioning, customer satisfaction or market opportunity and new product entry assessments for a variety of products within the global construction and transportation industries amongst others.
 - Quality charter: Ducker Worldwide is certified as conforming to ISO 9001 and works to the guidelines of the ESOMAR ethics standards.
- ❑ More information on Ducker can be found at www.ducker.com.

This report was produced by the European headquarters of Ducker Worldwide in cooperation with its US headquarters.

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This study assesses the AWP rental market value for the US over a six-year period. A separate report is available covering the European market.

- ❑ Main objectives:
 - 2011 AWP rental market value and fleet size
 - Trends and dynamics (2008–2013)
 - Operational indicators (investment, age of fleet, application)
- ❑ New in this report:
 - Information concerning main power sources of booms and scissors was added to the scope of the project this year.
 - Introduction to an emerging market: Brazil (presented in this report).
- ❑ The current study does not examine rental company profitability.
- ❑ The study covers the time period 2008-2013, with particular focus on 2011.
- ❑ The conducting of all interviews in the first two months of 2012 has allowed for primary data collection on the full previous year, thus providing for more specifically targeted and up-to-date information than would have been available from any statistical sources.

Products and Countries

- ❑ The current study focuses on powered access equipment, i.e. aerial work platforms (AWPs), also called mobile elevating work platforms (MEWPs). It includes the full range of powered access equipment (all sizes and types) except mast climbing work platforms (MCWPs).
 - Included are: all booms, scissor lifts and vertical masts.
 - Both articulating and straight telescopic booms.
 - Self-propelled as well as vehicle-mounted, push-around, trailer-mounted/towable, hoists.
 - Excluded are telescopic material handlers, forklifts, cranes, mast climbing work platforms.
 - This year, a product segmentation between booms and scissors has been included in the report.
- ❑ This report focuses on the US domestic market.
 - No regional segmentation is included.

Target Companies and Respondents

- ❑ The main source of information for this study is primary research through telephone interviews. Organizations interviewed for this study include rental companies and other industry experts:
 - Rental companies:
 - Specialist AWP rental companies (33% of the market in value): AWP 50% of rental revenue
 - Generalist rental companies (67%): AWP ≤50% of rental revenue
 - From rental companies interviewed, on average, AWP rental revenue represents 48% of their overall rental revenue.
 - AWP manufacturers.
 - National rental associations.
- ❑ In addition, an emailing was sent to gather information via a self-administered web questionnaire.
- ❑ Only persons with input in machine selection or management were qualified as respondents. Recurrent respondent job functions include in particular Owner, Sales and Technical Manager, Purchasing Manager, Fleet Manager, Branch Manager or Operations Manager.
- ❑ Ducker and IPAF would like to take this opportunity to thank all industry representatives who have been available for interviews and whose kind assistance made it possible to conduct this research.

Definitions

- ❑ AWP Rental revenue:
 - Includes for example: machine rental rates, machine repair, support (e.g. fuel services), transportation/delivery, training, damage waiver, operator charges.
 - Used equipment sales are excluded from the AWP rental revenues reported.

- ❑ Specialists vs. Generalists
 - For specialists: AWP rental revenue is above 50% of total rental revenue.
 - Generalists: AWP rental revenue is equal to or below 50% of total rental revenue.

- ❑ Re-rental:
 - Rental by one rental company from another rental company.

- ❑ Utilization rate:
 - Physical number of machines out on rent as percentage of total number in fleet at any given time.

- ❑ Average age of fleet:
 - Overall average age of the fleet in 2011, including machines that underwent refurbishment/remanufacturing.

- ❑ Rental rate:
 - corresponds more to net prices than list prices. Directly linked to the rental revenue
 - The dollar amount that customer agrees to pay for possession and use of a machine.



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EXECUTIVE SUMMARY

AWP Rental Market Situation at End 2011

- ❑ The US AWP rental market remains dominated by large generalist rental companies. The rental market structure i.e. specialists vs. generalists and large vs. small companies is rather stable in the US.
- ❑ US AWP rental revenue started to increase significantly in 2011 (+8%), totaling approximately \$6.2B.
- ❑ The AWP market upturn started in the last quarter of 2010 and was confirmed in 2011. In addition, similar growth trends are expected for 2012 (+9%) and 2013 (+7%).
- ❑ In 2011, rental companies remained relatively conservative in fleet expansion, and the overall AWP fleet remained stable at approximately 429,000 units.
 - Fleet mix did not change much in 2011. Booms still represent around 40% and scissors account for about 50% of the fleet. However, personnel lifts and vehicle-mounted machines are expected to gain popularity in 2012, with an estimated 10% of the AWP fleet compared to 7% in 2011.
 - Market players report a trend towards cleaner motors/power sources (electric, hybrid) and niche machines (smaller scissors, atrium/spider lifts, etc.)
- ❑ Investments remained limited in 2011 (+4%) and primarily made by specialists. However, rental companies, and especially specialists, expect investments to almost double in 2012 (investments increased by +96% compared to 2010), primarily for fleet expansion. Fleet size should therefore increase by 6% in 2013.

AWP Rental Market Situation at End 2011

- ❑ Generalist and specialist rental companies had opposite strategies in 2011:
 - Generalists chose to significantly increase rental rates (+7%) at the expense of utilization rates, which remained stable (69% in 2011 vs. 70% in 2010)
 - On the contrary, specialists decided to limit rental rate increases (+1%) in order to improve utilization (70% in 2011 vs. 66% in 2012).

- ❑ Rental rates are expected to continue increasing in 2012 (+6%) and in 2013 (+4%). However, these increases will not yet allow rental rates to reach pre-recession levels.

- ❑ The average age of the fleet decreased for rental companies (-8 months), especially for specialists who invested more than generalists in fleet renewal. The average age of the fleet is expected to remain relatively stable in the coming years, around four and a half years.

Canadian AWP Market

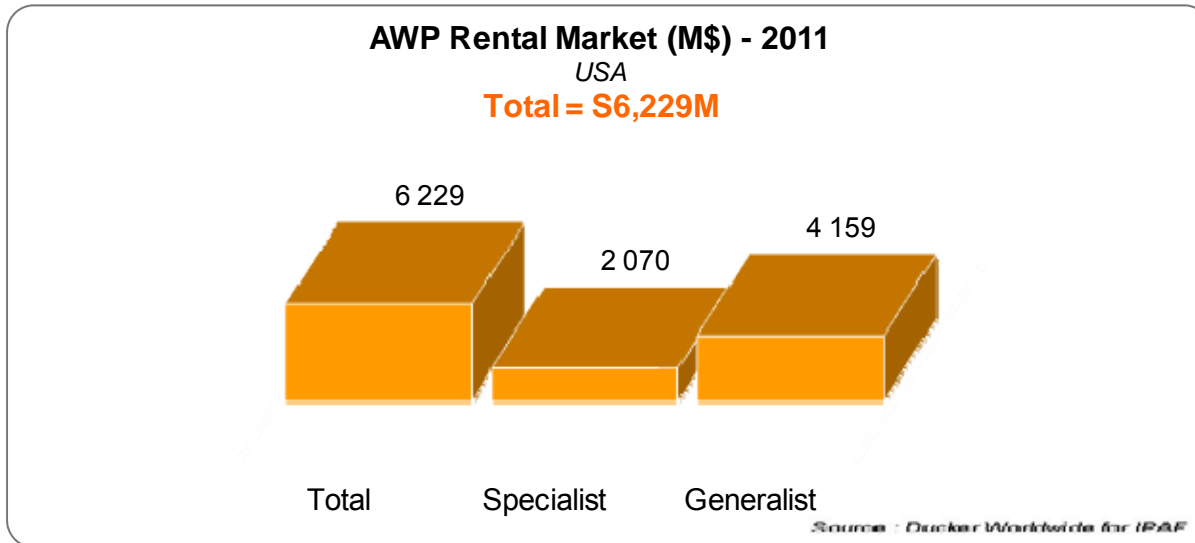
- ❑ The Canadian construction market did not experience significant downturn in 2009 or 2010. The AWP market continued to experience slight but solid growth in 2011.
- ❑ Rental rates were maintained in Canada, while they decreased strongly in the US.
- ❑ It is expected that the Canadian market will continue to experience single-digit growth in 2012 and 2013.
- ❑ Rental companies in Canada are willing to acquire new equipment, but this has proven to be difficult as North American manufacturers significantly reduced production during the US recession. As a consequence more and more Canadian rental companies are turning to used equipment acquired from the US market.



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MARKET SIZE 2011

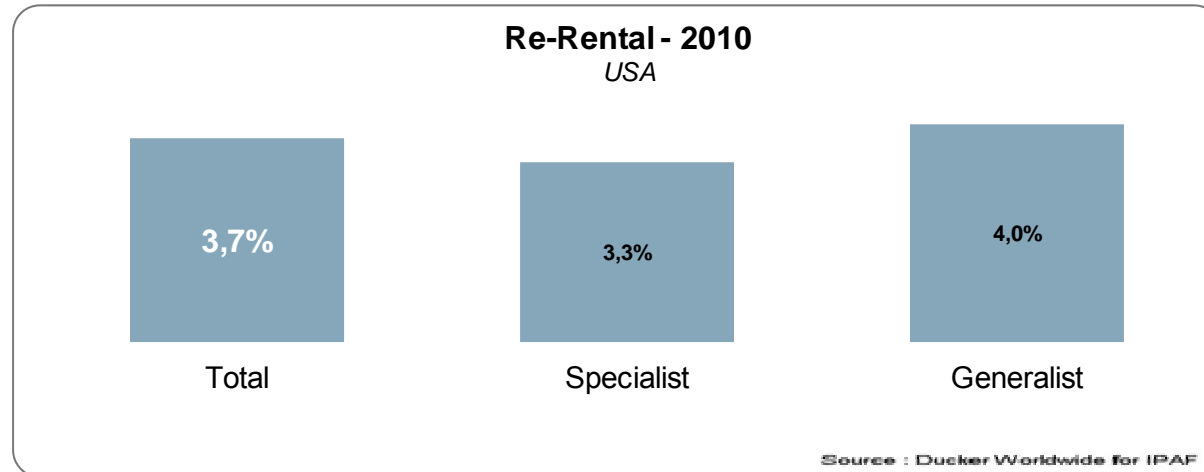
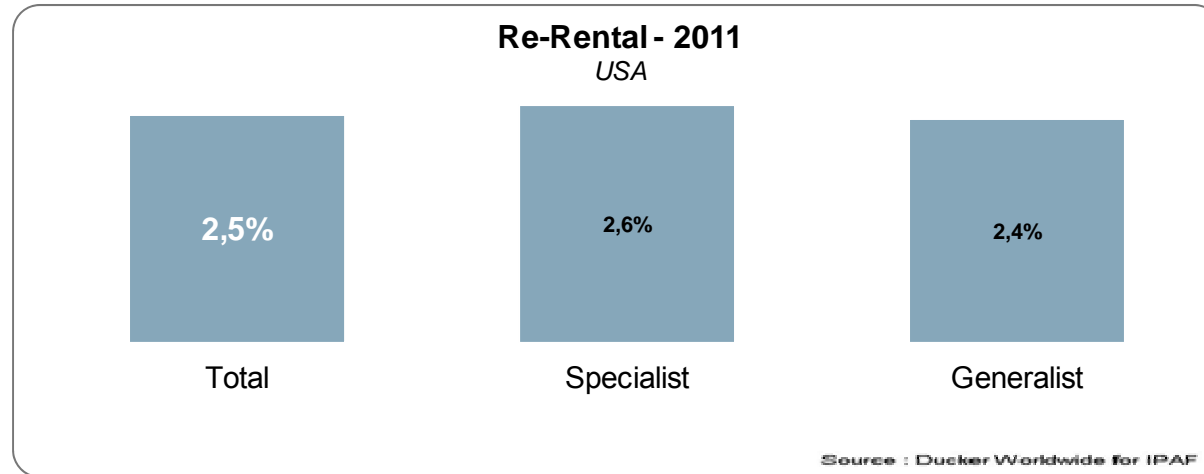
The total AWP rental market value in 2011 in the US is estimated at approximately \$6.2B



- In rental companies that have an AWP fleet, AWP's represent on average 48% of rental revenues.
 - This ranges from 28% of total revenue for generalist companies to 85% for specialists.
- The structure of the market remains stable. The US market is characterized by a majority of very large generalist companies.
 - Generalist AWP rental companies are estimated to hold approximately 67% of the AWP rental market.

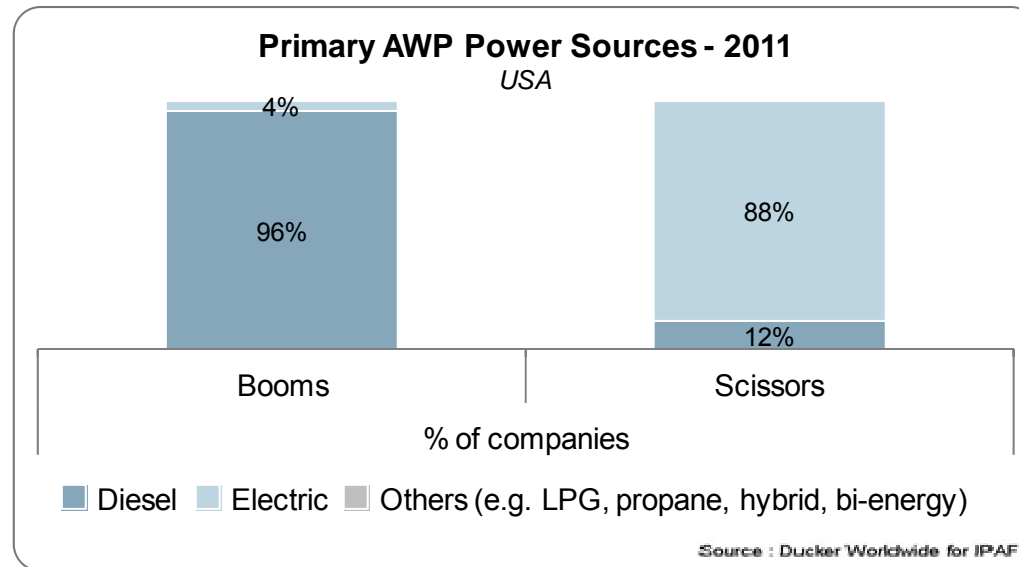
	Total	Specialist	Generalist
Rental. Rev. as % of Total Co. Rev.	69%	75%	65%
AWP Rev. as % of Total Rental Rev.	48%	85%	28%
AWP Rental. Rev. as % of Total Co. Rev.	24%	64%	19%

Re-rental, i.e. rental by one rental company from another, remained at a very low level and only represented around 2% of the AWP rental market.



All re-rental amounts have been eliminated from totals expressed in this report

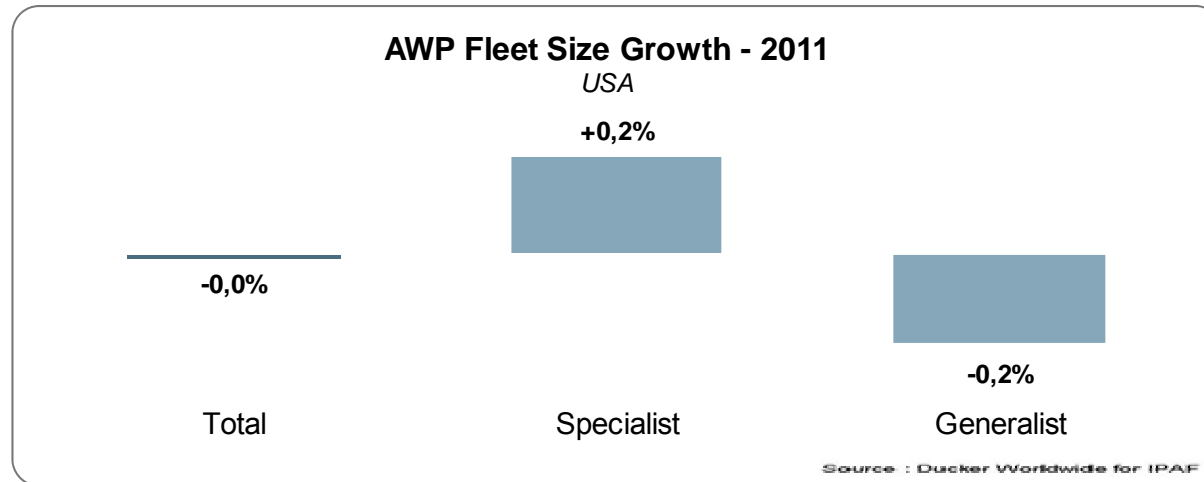
In the US AWP rental market, the vast majority of booms owned by rental companies are diesel, while most scissors are electric.



*% of rental companies who stated their booms or scissors were **primarily** diesel, electric or other.*

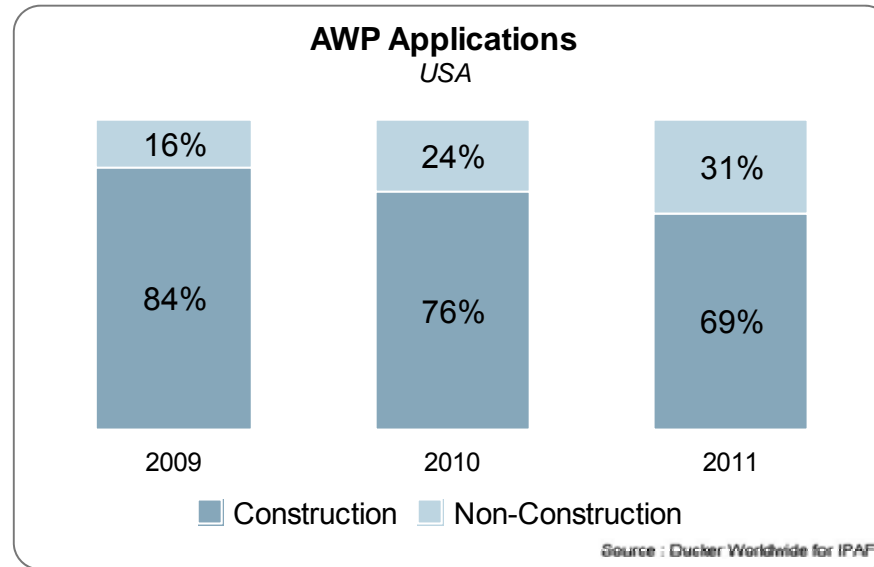
The US AWP fleet remained stable in 2011. No significant difference exists between specialist and generalist rental companies.

- ❑ Rental companies remained conservative concerning fleet expansion in 2011, and preferred to focus investments on replacements.



US rental companies are diversifying their activities more and more into non-construction applications. This trend was noted in the last report and commenced in 2010.

- ❑ By working more in non-construction applications, several rental companies were able to maintain or even gain more business.
- ❑ This should pose for significant growth when the construction segment returns to health.



Share of rental revenues

*Non-construction includes property care, maintenance, cleaning, utilities, events.
Construction includes new build and renovation; including all types of building, also industrial*

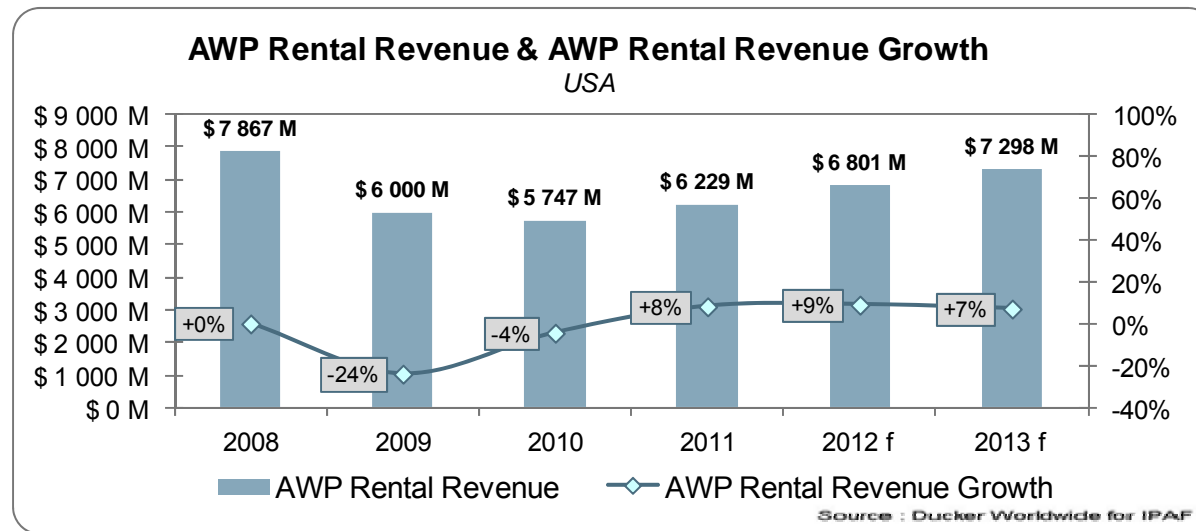


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MARKET DYNAMICS 2008-2013

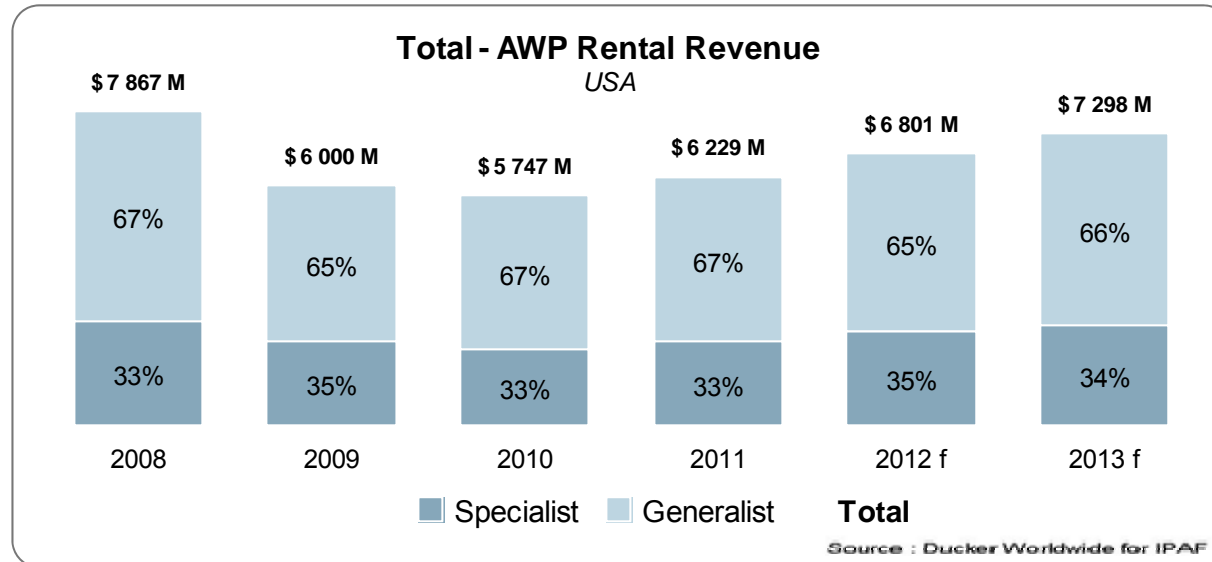
For the first year since the recession, rental companies report an increase in their AWP rental activity in 2011. In addition, AWP rental revenue is expected to continue to increase at a similar pace in 2012 and 2013.

- Revenue growth is higher than previously expected by market players. Underlying factors are several:
 - During the recession, when rental rates were particularly low, users had limited investment capabilities and more of them turned to rental as opposed to purchase. Now that the economy has improved, it is reported that many companies have become used to renting as opposed to buying AWP equipment.
 - In addition, some major governmental construction works have positively influenced the AWP market.



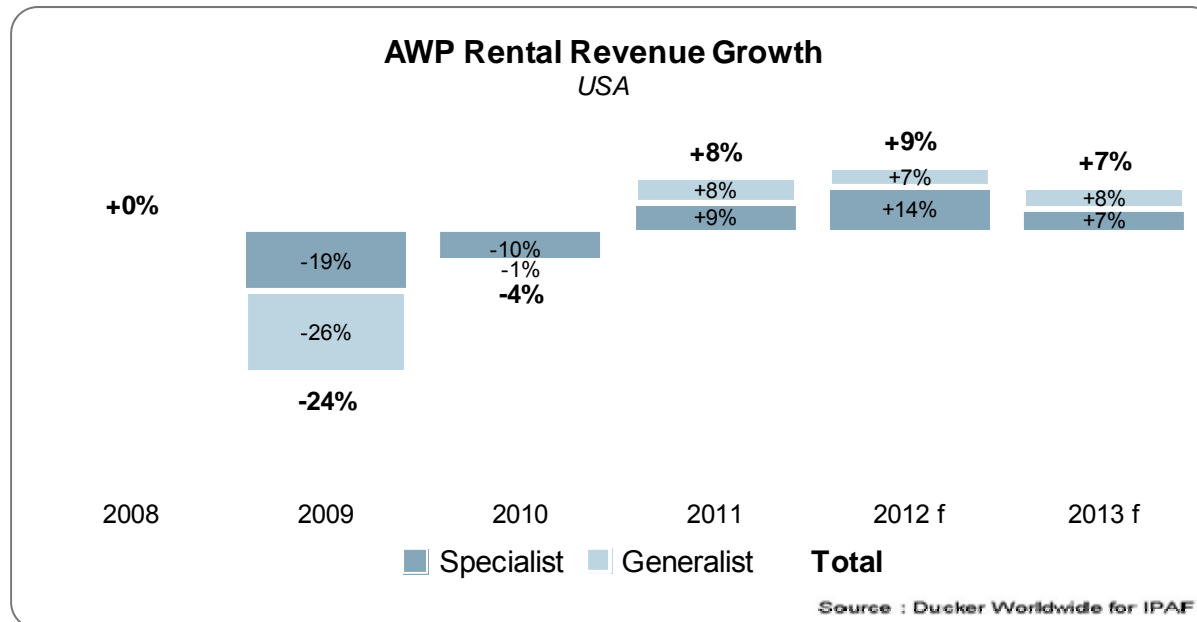


The US market structure remains stable in terms of the split between specialists and generalists. Specialists account for a third of the overall AWP rental revenue. Their share is expected to slightly increase in 2012.



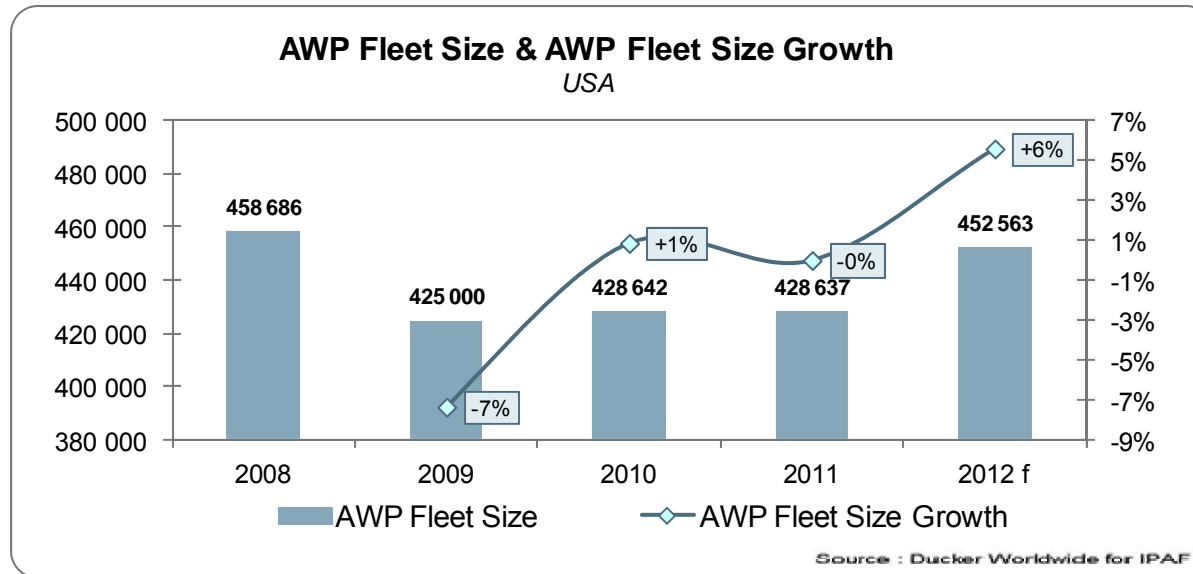
Specialists and generalists experienced a similar growth trend in 2011.

- However, it is expected that specialists' rental revenue will increase slightly quicker in 2012 than generalists' due to higher rental rates and utilization. Niche machines and more specialized equipment will become more popular and specialists are typically offering more of these types of machines.



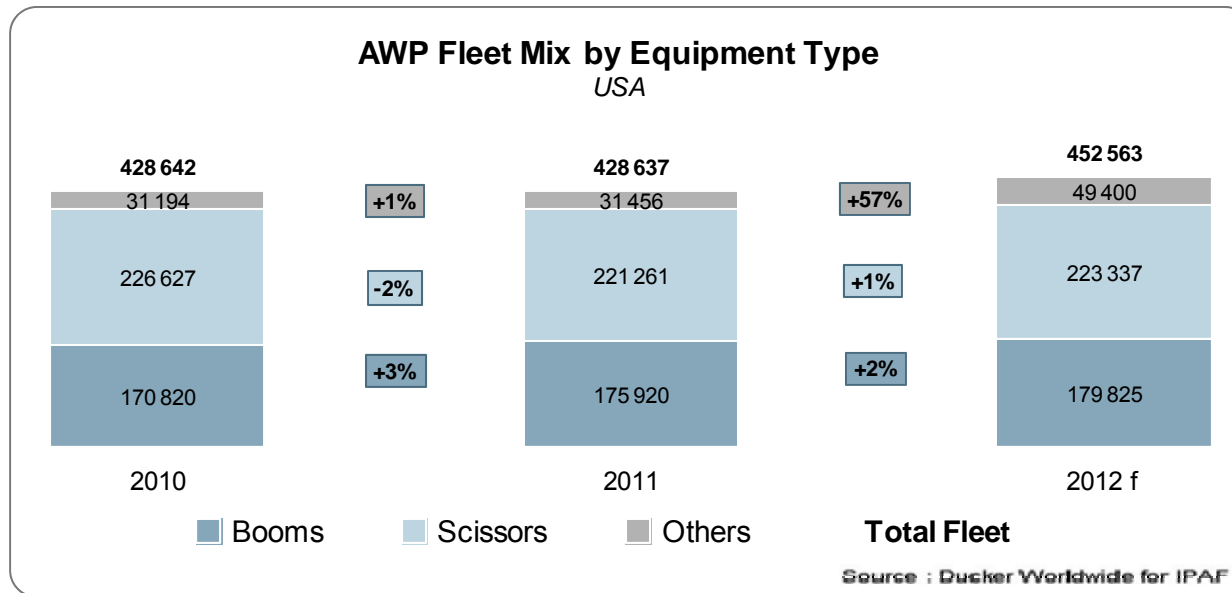
In 2011, the US AWP fleet size remained stable with approximately 429,000 machines. Investments were primarily made by specialists for fleet replacement.

- US rental companies remained cautious in their purchases in 2011, and limited replacement investments. However, it is expected that 2012 will see a return to fleet expansion, primarily from specialists.
- Since specialists are dependent on AWP revenue; they de-fleeted rapidly in prior years and now need to increase fleet size again to meet market demand.



Fleet mix remained similar in 2011 compared to 2010. Scissors continue to represent more than 50% of the overall AWP fleet.

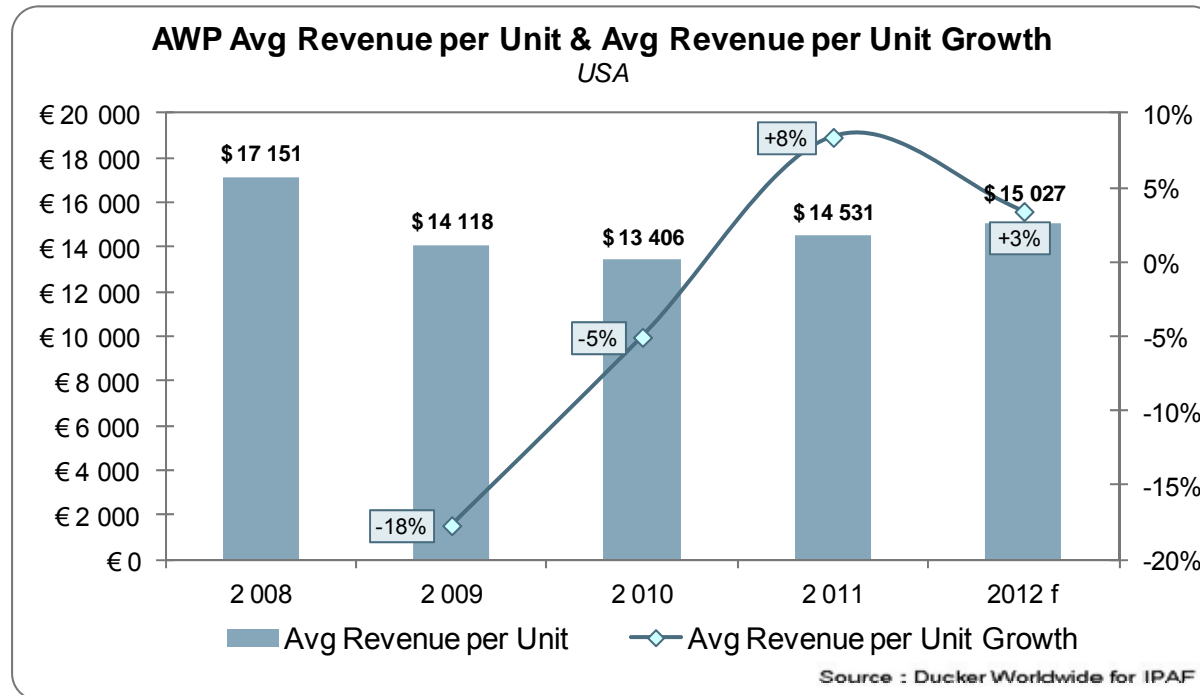
- The US rental fleet mix is expected to slightly change in 2012, with other equipment than scissors and booms, such as personnel lifts and vehicle-mounted booms gaining popularity. These would represent 10% of the overall rental fleet in 2012 compared to only 7% in 2011 (n.b. the total US market for vehicle-mounted lifts is much larger but most units are owned by companies not active in the rental sector).



Other includes vertical lifts, vertical masts, vehicle-mounted booms.

The average revenue per unit in 2011 increased greatly compared to 2010, due to significant rental rate increases.

- The revenue per unit is expected to continue increasing but at a slower pace in 2012 due to an increase in fleet size, greater than revenue growth. However, the revenue per unit will still remain notably lower than in 2008.



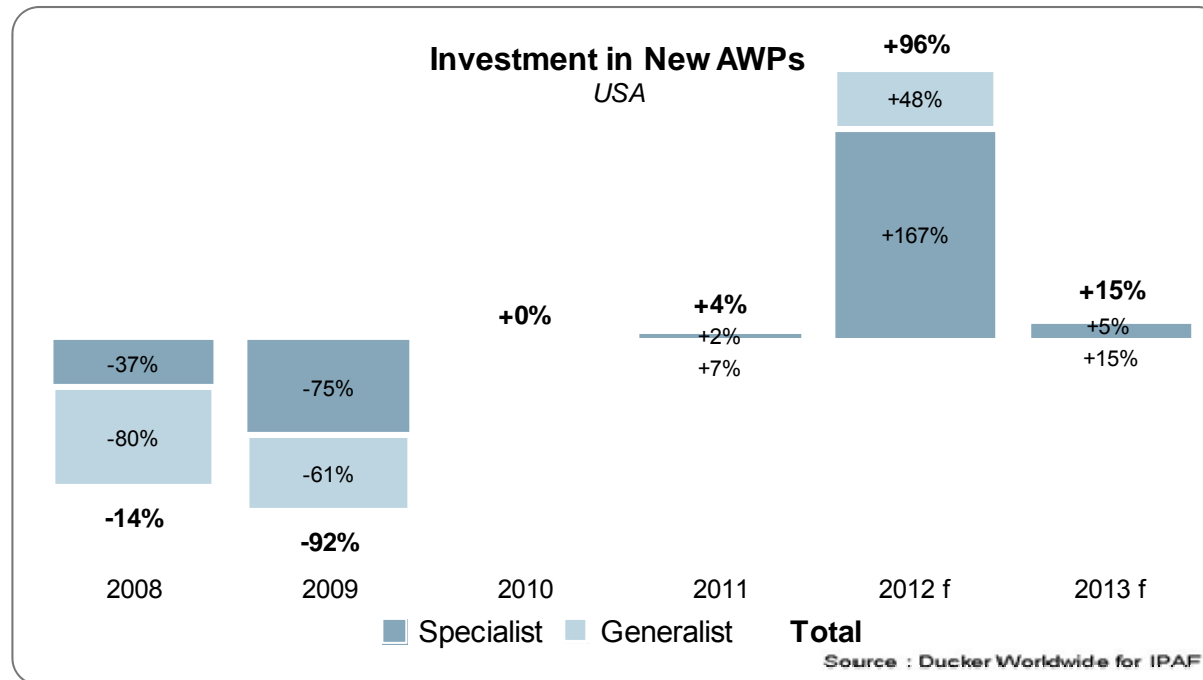


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INVESTMENTS 2008-2013

While investments stabilized in 2010, 2011 saw a slight increase in rental companies' purchases, especially by specialists.

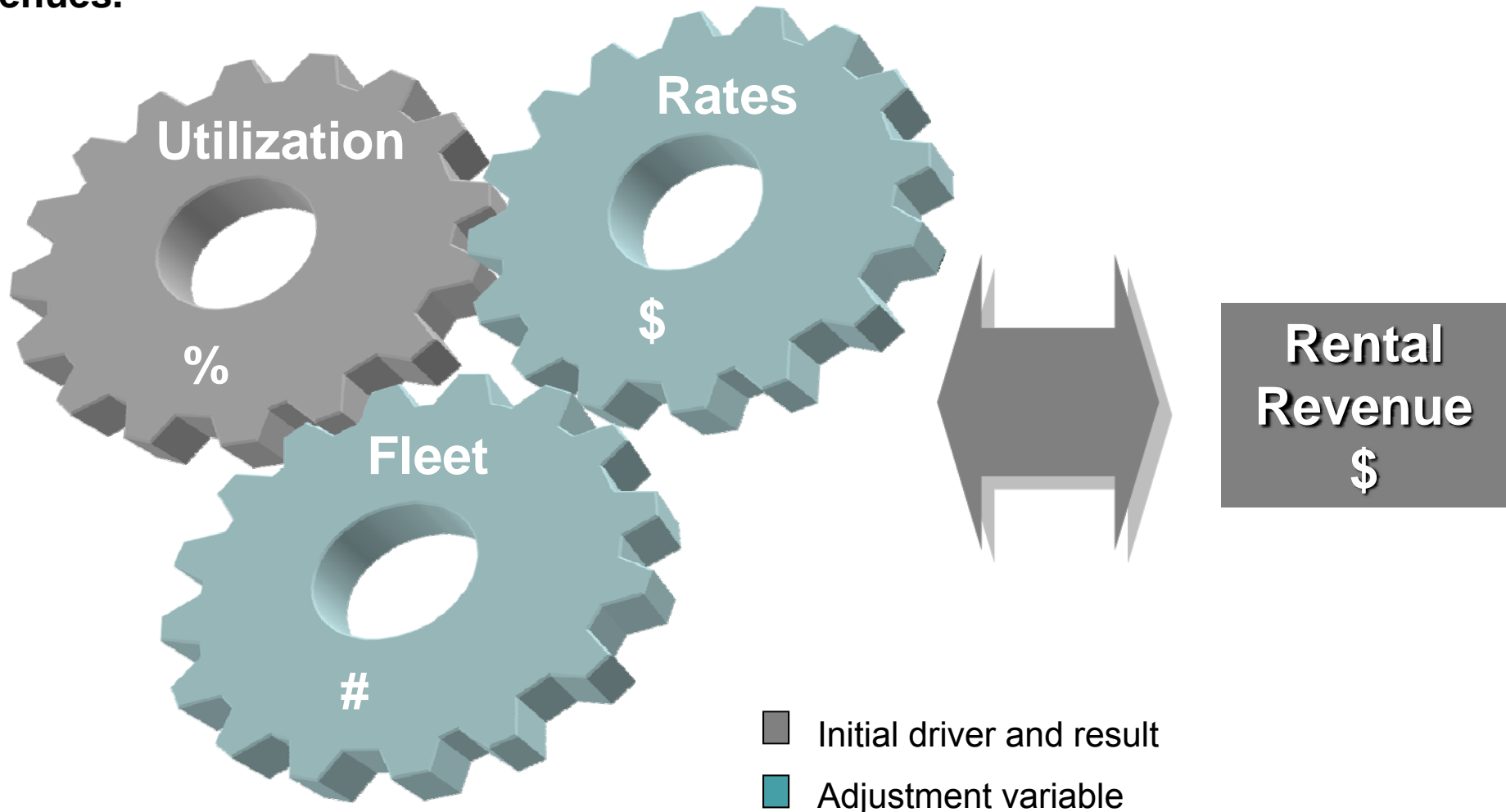
- ❑ However, these investments remained focused on machine replacement.
- ❑ As rental companies anticipate continuous market growth in 2012 and 2013, they plan for higher investments in 2012 to expand their fleets. This is particularly true for specialists who expect to more than double their investments in 2012.



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OPERATIONAL ASPECTS 2009-2012

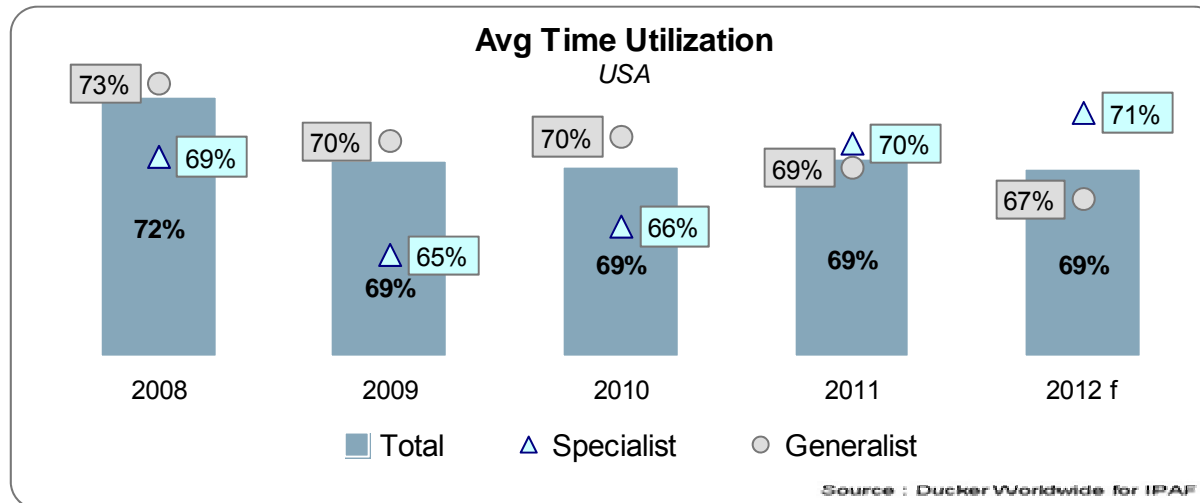
Rental revenues are the result of three main factors, namely equipment time utilization rate, rental rates and fleet size/mix. Rental rates and fleet build-up are the two elements that rental companies can choose to vary in order to influence utilization and thereby, revenues.



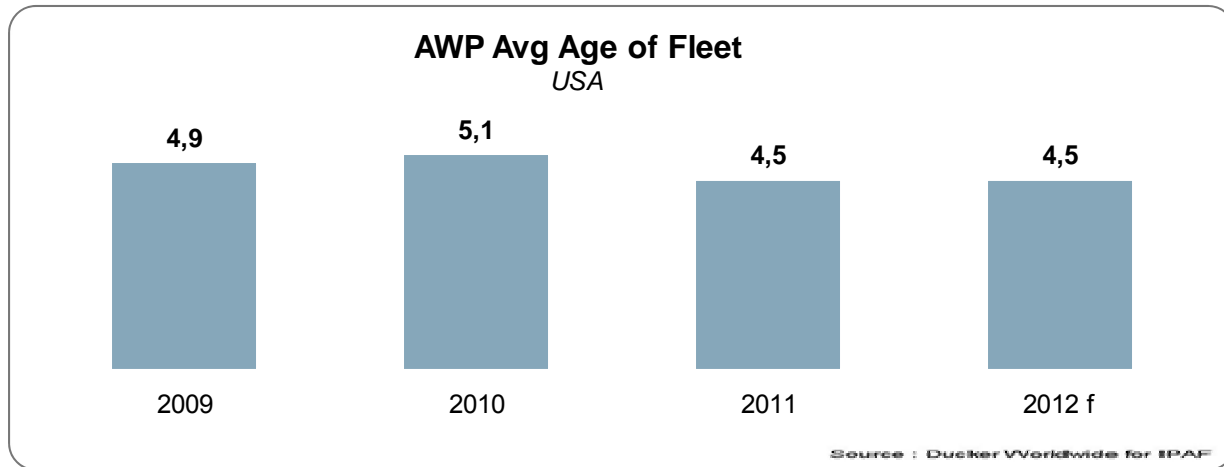
- Initial driver and result
- Adjustment variable

US time utilization rates for generalists remained stable in 2011 compared to 2010.

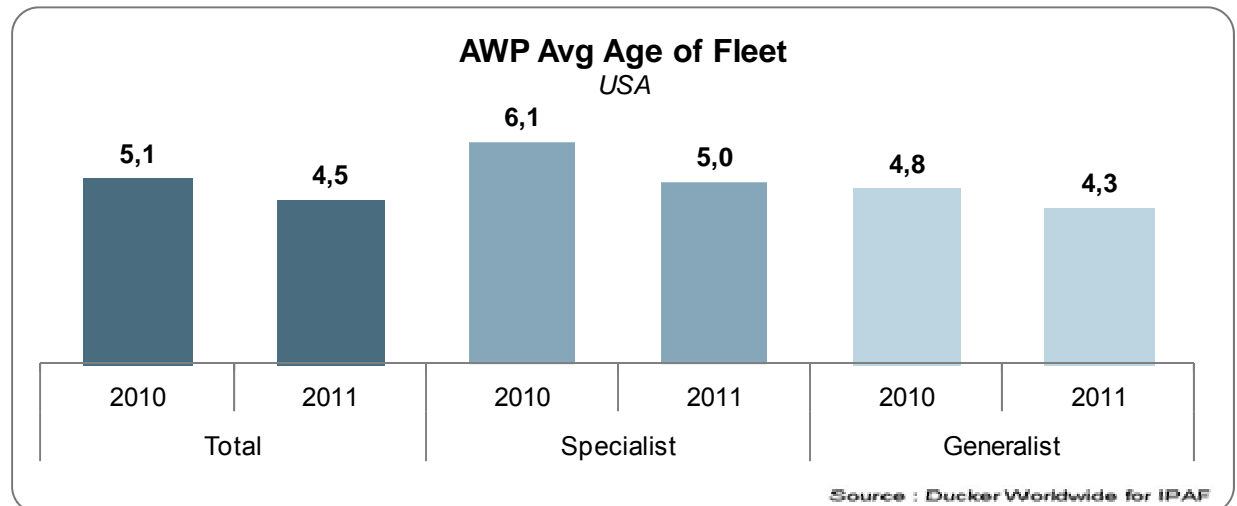
- However, while generalists' utilization remained stable, specialists experienced a significant improvement of their utilization rates, catching up with generalists.
 - Specialist rental companies chose to limit rental rate increases in order to improve utilization rates, while generalists on the contrary preferred to increase significantly rental rates, which limited utilization improvement.



The average fleet age slightly decreased in 2011 for all groups, and particularly for specialists who invested more in fleet renewal than generalists.

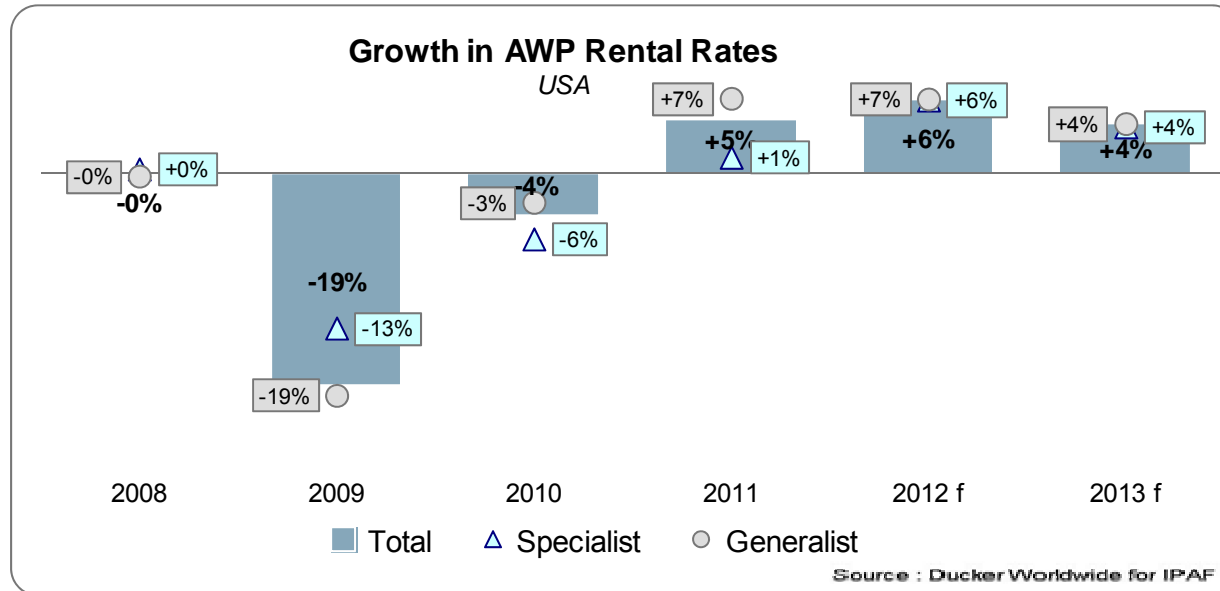


4,5 = 4 years and 5 months



After two years of continuous decline, rental rates increased in 2011.

- ❑ Rental rates are expected to continue to increase at a relatively rapid pace in 2012 and, to a lesser extent, in 2013.
- ❑ Generalists in the US strategically chose to increase rental rates at the expense of utilization rates (which as a consequence remained stable).
- ❑ The growth in rental rates planned for 2012 and 2013 will not bring rates back to pre-recession levels.

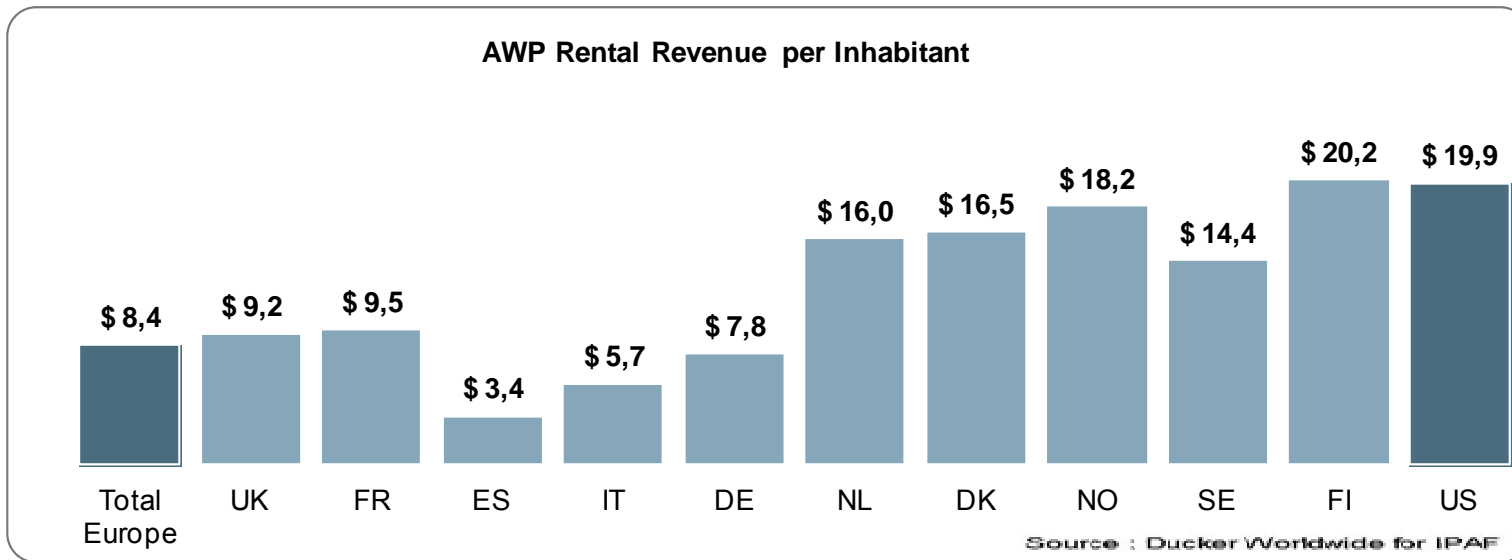




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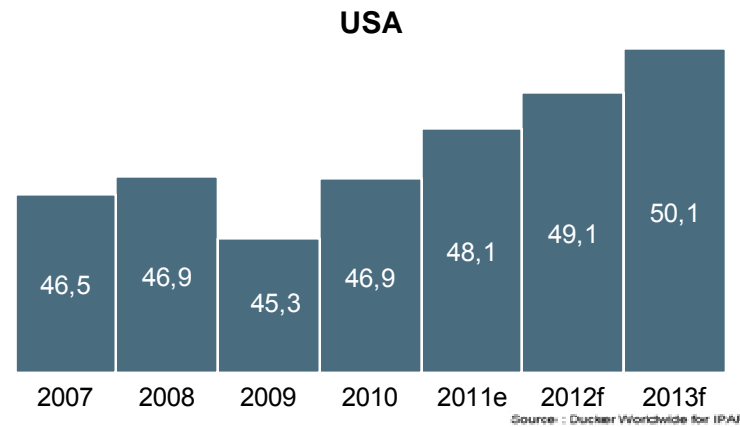
MARKET TRENDS AND DRIVERS

Country Population Penetration – AWP rental revenue per inhabitant



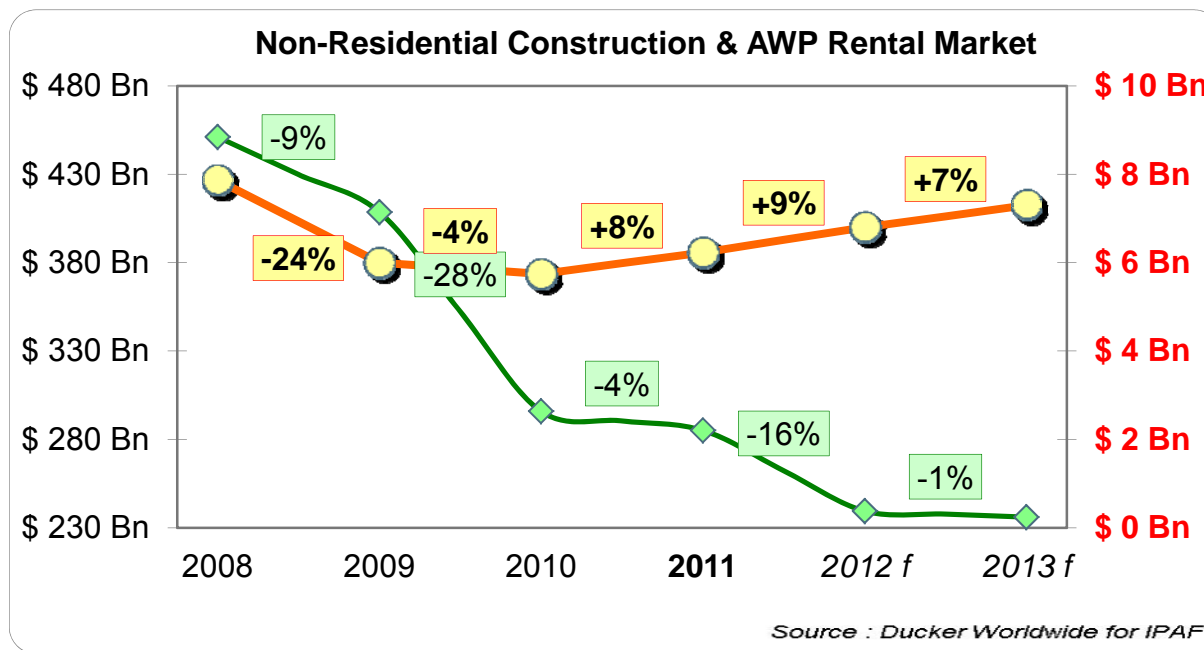
Exchange rate: €1= \$1.32

GDP per capita



*Thousand US dollars at 2011 prices. Source:
International Monetary Fund, World
Economic Outlook Database, September
2011*

The AWP market is resisting the construction recession better than expected. This is partly due to the fact that rental companies turned to non-construction applications as well as some major governmental projects starting in 2012.



◆ Non-Residential Construction ● AWP Rental Market

Source: Bureau of Economic Analysis, CBO's and US Census Bureau

Rental companies expect environmentally friendly machines to become increasingly popular, driven by the Tier 4 regulations.

Market Consolidation

- The market is going through intense consolidation:
 - The largest rental company is acquiring the second player,
 - Another major player is acquiring smaller independent companies.

Fleet specialization

- Niche products for special applications:
 - Higher lifting capacity, higher reach capacities, smaller indoor machines, atrium (or spider) lifts, etc.
- Increased popularity of environmentally friendly machines (electric, hybrid, bi-energy), also driven by the Tier 4 engine requirements.

Less reconditioning / refurbishing

- While increased reconditioning of machines occurred during previous periods of recession, rental companies seem to have moved away from this trend as it has not proven as efficient as expected (mechanical problems).

Diversification

- The trend towards non-construction applications (maintenance, events, etc.) is most likely to continue in the coming years.

Need for education / increased safety

- Safety remains a major concern for rental companies: operator training efforts should continue.
- In addition, rental companies expect manufacturers to develop better fall-protection systems / anti-crush devices.

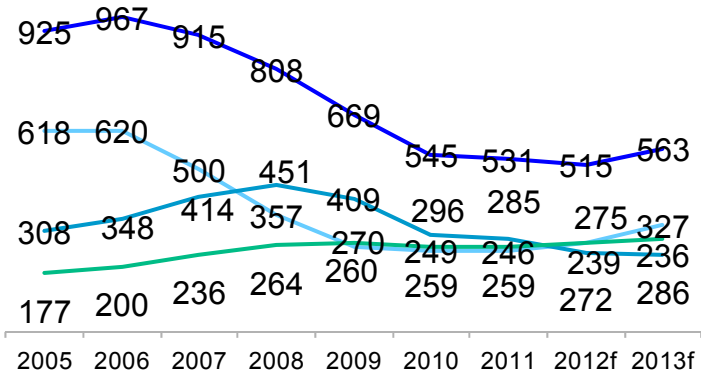


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APPENDIX



USA - Construction Data



Source : Ducker Worldwide for IPAF

Billion US dollars. Source: US census bureau and Ducker Worldwide estimates

- Residential construction
- Non-residential construction
- Total construction
- Civil engineering



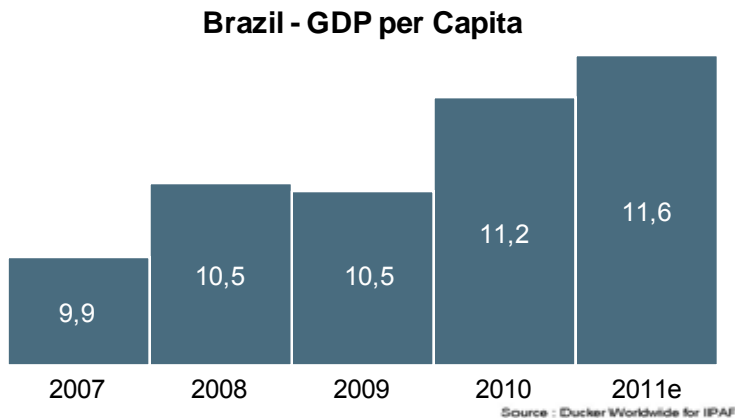
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BRAZILIAN AWP MARKET

The Brazilian AWP market has been experiencing strong growth over the last few years.

- ❑ The AWP fleet size was estimated between 14,500 and 15,000 units at the end of 2011, representing a 45 to 50% growth on 2010.
- ❑ Players expect the market to continue to grow at a very fast pace with an average of 40% annual increase in the next 5 years.
 - The Brazilian AWP fleet will probably number more than 25,000 units at the end of 2013.
- ❑ The strong growth of the Brazilian AWP market is driven by a dynamic construction market (infrastructure, residential) as well as some large national construction projects due to two major events: the 2014 Football World Cup and the 2016 Olympic games.
- ❑ In addition, safety issues are an increasing concern in Brazil and drive the utilization of AWP's in preference to ladders or scaffolding.
- ❑ Rental companies in Brazil stress the need for more training of machine users in order to avoid accidents. Some companies report that less than 10% of the current users have been trained to properly manoeuvre the machines.
- ❑ The fleet mix is reported to be weighted towards booms, as opposed to scissors. It is estimated that no more than 5% of the AWP fleet is made up of vertical units as ladders are still strongly used.
- ❑ Currently no local manufacturing is reported by market players, imports come primarily from North America, but also from Europe (from manufacturers as well as from other rental companies selling or operating their surplus stocks – especially from Spain).

GDP per inhabitant and construction data.



Thousand US dollars at 2011 prices. Source: OECD, estimates from CIA Factbook

- ❑ In 2010, the construction sector (non-residential) represented \$85B compared to \$80B in 2009 (+8%).
- ❑ Civil construction is estimated to represent approximately \$90B per year.
- ❑ Residential construction is expected to generate 130 to \$185B between 2010 and 2030.
- ❑ The 2014 soccer World Cup in 2014 (\$10B investments) and the Olympic Games in Rio de Janeiro in 2016 (\$16B) are playing a large role in the construction sector development.

This concludes our report. Thank you.

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