ETF
RESEARCH
INSIGHTS

What role has passive management left for active?

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What role has passive management left for active?

Lyxor and the Lyxor Dauphine Research Academy examine the role of active and passive management in portfolios

This is the second in a series of papers from Lyxor on the evolution of the asset management industry.

In the first, published in 2017[1], we looked at whether the growth of ETFs is making markets less efficient by increasing correlations, harming diversification and adding to volatility.

In this second paper, we examine a question that comes up all the time during our conversations with investors across Europe. Is the growth of passive (index-based) asset management affecting the cash flows into actively managed funds and the performance of active managers? Could the growth of passive investing even obviate the need for active management entirely?

Our views, expressed in this paper, are backed by the key findings of academic studies sourced by the Lyxor Dauphine Research Academy (see p11), as well as by the work of our in-house research team.

Our findings show that active still has a vital role to play

In Lyxor's view, claims that active asset management may be in terminal decline are exaggerated. In fact, studies by the Lyxor Dauphine Research Academy show that active management benefits from the readier availability and greater use of passive tools.

For example, the rise of passive tools introduces a natural element of competition by forcing active managers to generate true alpha if they want to continue gathering flows.

Ultimately, the increased role of index-based investing is more an opportunity than a threat for active managers. It creates a more effective equilibrium where each management style has a distinct role to play.

The two studies sponsored by the Lyxor Dauphine Research Academy 2018, which we outline in this paper, help provide support for these conclusions.

We reach these conclusions by focusing on three key questions in the remainder of this paper:

- **Will increasing competition from passive mark the end for active managers?**
- **Is there a "right" market share for both management styles?**
- **What is Lyxor's view on the evolution of competition between active and passive?**

1. Lyxor ETF Research Insights, "How ETFs affect financial markets", November 2017

Q1: Will increasing competition from passive mark the end for active managers?

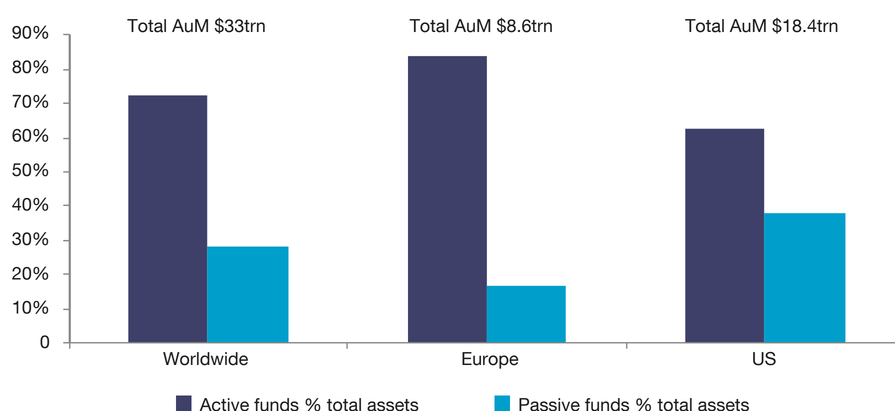
What are the latest market shares of active and passive asset management?

There's no doubt that passive asset management has enjoyed huge growth in the last decade. But it's important to put things into perspective: passively managed portfolios are still in the minority. Here are some statistics on market share:

- **Worldwide, passive funds represented 27% of total funds managed in 2017, up from 16% in 2010;**
- **In Europe, passive represented 16% of total funds managed in 2017, up from 12% in 2010;**
- **Passive's market share is higher in the US—37% in 2017, vs. 20% in 2010;**
- **Worldwide, passive has a greater market share in equity (39%) than in fixed income (20%).**

Passive funds still represent a small part of the Asset Management industry.

Worldwide, Europe & US share of active & passive management in total asset management industry



Source: Morningstar data in USD as of 29/06/2018.

But if we compare the size of active and passive funds with the size of the global financial markets (the market capitalisation of bonds and equities), we get another viewpoint.

Active fund management (including assets actively managed under mandates) represents 20% of financial markets, whereas passive funds represent just 8%. The rest of the equity and bond markets are directly owned by individuals, pension or sovereign funds.

This means the ownership ratio of passive management worldwide, including index funds, ETFs and passive mandates, is 8%. In the US, the figure goes up to 13%. In Europe, it drops to 5%. Therefore, passive funds still represent a relatively small portion both of the asset management industry and of financial markets as a whole (see details in the graph below).

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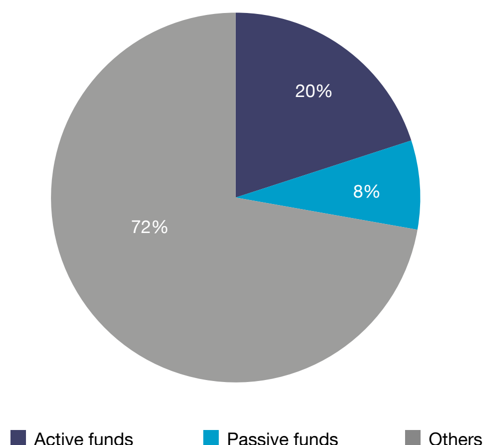
Asset management share of global financial markets (global bond + equity market capitalisation)



Source: Morningstar as of 29/06/2018, Bloomberg. BCG, Global Asset management 2017, MSCI ACWI IMI, BARCAP GLOBAL BOND AGGREGATE index market cap data as of 29/06/2018.

How do investors choose between active and passive?

Insights from the first academic paper[2] sponsored by the Lyxor Dauphine Research Academy 2018 help throw light on how investors allocate assets between active and passive strategies.

What questions did the researchers study?

In the research paper, the academics examined two questions:

- **Is there a link between the past performance of active funds and subsequent fund flows?**
- **Does the greater availability of sophisticated ("smart beta" or "non-market-cap") ETFs affect the way investors view active fund performance?**

> The greater availability of ETFs affect the way investors select active funds.

What conclusions did the researchers reach?

In their study, Cao, Hsu, Xiao and Zhan reached the following conclusions:

- **There is a link between the past performance of active funds and subsequent fund flows: fund flows are sensitive to recent fund performance, especially during the initial six months after the reporting of performance data. In other words (and unsurprisingly), positive recent past performance tends to generate greater inflows, while negative recent past performance generates outflows.**
- **However, the greater availability of sophisticated ("smart beta") ETFs has affected the way investors view active funds' performance. The researchers find that fund flows have become "smarter", reflecting greater investor awareness of the extent to which performance has been generated by exposure to systematic (or "factor") risks, such as small cap, value, momentum, quality and so on.**
- **Investors in countries with a more developed market for non-market-cap ETFs (see below for the researchers' definition of this term) are more sensitive to complex measures of active manager skill.**

> Investors are becoming more sensitive to complex measures of active manager skill.

2. "Smart Beta, 'Smarter' Flows", Cao, Hsu, Xiao, Zhan, February 2018.

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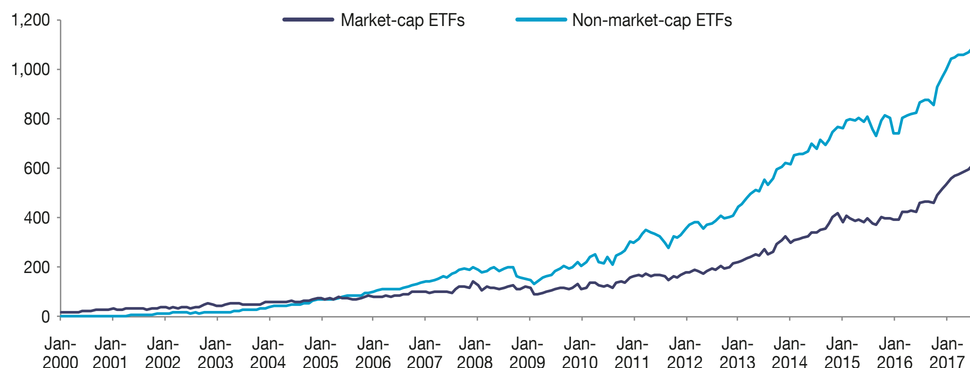
How did the researchers reach these conclusions?

In their research, Cao, Hsu, Xiao and Zhan distinguished market capitalisation-based from so-called “non-market-cap” ETFs. They define non-market-cap ETFs as those giving access to a specific market segment or risk premium. The development of such ETFs has been very significant: according to the researchers, the total net assets of non-market-cap ETFs have exceeded those of market-tracking ETFs since 2009, which is consistent with the ongoing boom for smart beta strategies.

Total net assets of US-based domestic equity ETFs since 2000 in USDbn



Source: Smart Beta, ‘Smarter’ Flows, Cao, Hsu, Xiao and Zhan (2017).

The increasing availability of smart beta funds is forcing active managers to demonstrate that they can deliver true alpha.

To do their empirical testing, the researchers used a universe of 4000 US-based domestic equity active funds and 755 US domestic ETFs, covering the period from 2000 to 2015. They also conducted a cross-country analysis, covering 13 countries and over a five-year period from 2010 to 2015. This cross-country study included more than 6000 active equity funds and more than 200 ETFs.

The authors also propose a redefinition of “alpha” in a world of increasing ETF choice. In traditional finance theory, asset manager skill (alpha) is calculated as the residual return after accounting for the effect of market risk, measured by beta.

But in a world of multiple betas, alpha needs redefinition. Cao, Hsu, Xiao and Zhan say that “sophisticated” or “complex” alpha is the residual return earned by an asset manager after taking into account the returns due to factor exposures.

Finally, they tested the sensitivity of active management flows to different performance measures. Sophisticated alpha is harder to identify in past mutual fund returns. The researchers demonstrate that in a period of high trading volume of non-market tracking ETFs, the dominance of the simplest alpha over the complex alpha weakens and even disappears.

ETFs are helping generate a more competitive asset management marketplace, they will not replace the best-performing active managers.

LYXOR’S VIEW: WHAT CONCLUSIONS CAN WE DRAW FROM THE RESEARCH?

The research of Cao, Hsu, Xiao and Zhan provides evidence that the introduction of passive funds has helped investors by increasing competition in asset management.

Specifically, the increasing availability of smart beta funds is forcing active managers to demonstrate that they can deliver true alpha (performance in excess of the returns generated by exposure to systematic—factor—risks) in order to continue to gather flows.

So while ETFs are helping generate a more competitive asset management marketplace, they will not replace the best-performing active managers. But, in turn, those active managers must be able to show they can beat not just the market index, but smart beta indices as well.

Q2: Is there a “right” market share for both management styles (active and passive)?

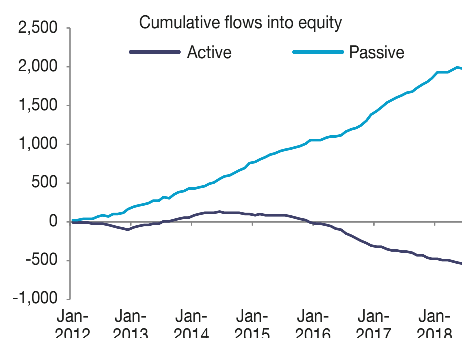
So far, there is little sign that the equilibrium between active and passive management has already been reached.

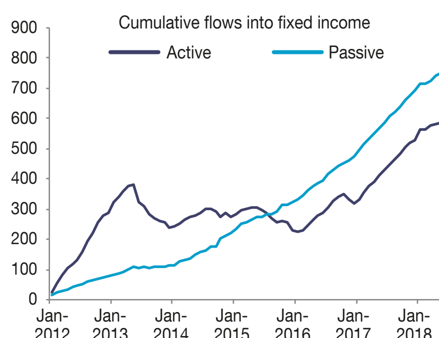
There is so far little sign that we are reaching a stable market share between active and passive funds.

In the charts below we show that recent flows into passively managed equity funds have massively exceeded those into active funds, especially in the US. This trend seems to reflect investors’ disappointment with active managers’ performance: over 10 years only 25% of equity active managers and 24% of fixed income active managers[3] have outperformed their benchmarks. In fixed income, the picture is more mixed, with passive funds attracting slightly more flows than active funds in the US since 2012.

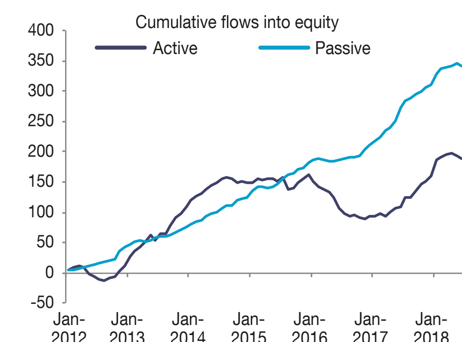
In Europe, the situation is reversed, with active fixed income funds still attracting more flows than passive. In equity, passive funds are collecting 60% of flows.

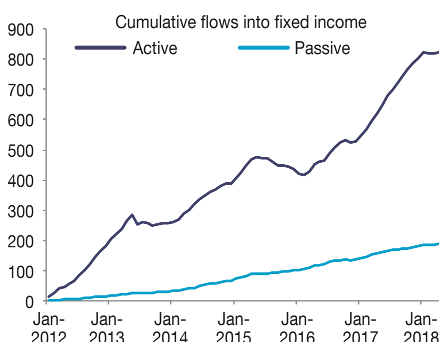
Flows in the US into active and passive funds





Flows in Europe into active and passive funds





Source: Morningstar universe of open-end funds domiciled in respectively the US and Europe, excluding Money-market funds and Fofs, data in USDbn from 31/12/2011 to 29/06/2018.

3. Based on Lyxor ETF Research analyzing more than 6000 European domiciled active funds.

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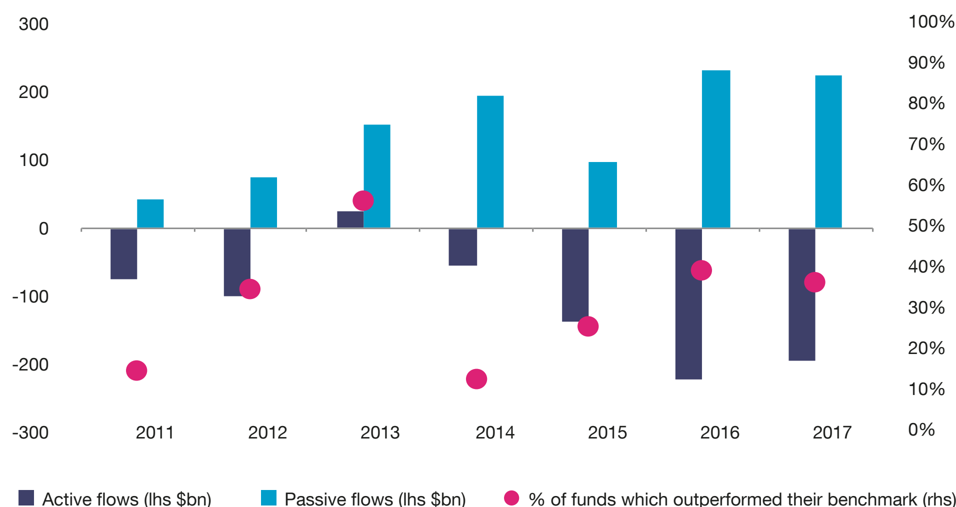
Active and passive fund flows can also be seen in the context of relative fund performance.

Among US-domiciled active funds investing in US equities, on average per year 37% of managers have beaten their benchmark over the past ten years. As seen in the graph below, outflows seem to be linked with disappointing results from active managers. Outflows occurred each year during the past 10 years when the percentage of active funds outperforming their benchmark was below 50%.

US equity funds: active and passive flows vs. relative fund performance



Source: Morningstar and Spiva, as at 29/12/2017, US-domiciled funds.

In the US, active fund outflows seem to be linked with their disappointing results.

But can these broad trends, which appear to favour passive funds over active, continue indefinitely? Or will there be a point at which the respective market shares of passive and active reach equilibrium?

There is a theoretical equilibrium between active and passive.

In the second paper[4] sponsored by the Lyxor Dauphine Research Academy 2018, academics examine whether the increasing market share of passive funds will eventually generate sufficient inefficiencies for active managers to prosper and make a comeback.

What questions did the researchers study?

In their paper, the researchers examined the increased use of benchmarks in asset management and asked the following questions:

- **How does the increased use of benchmarks influence information choices?**
- **Does benchmarking create informational inefficiencies that can be exploited by active investors?**
- **Is there any evidence this takes place?**

What conclusions did the researchers reach?

Breugem and Buss found that:

- **Benchmarking reduces the number of shares in investors' portfolios that are sensitive to private information and limits investors' willingness to speculate;**
- **Benchmarked investors trade less aggressively on a particular piece of information, so that in effect there is a decline in the value of private information;**
- **Put another way, benchmarked investors are less well-informed than active investors;**
- **And, over time, less well-informed investors can be expected to earn lower returns than non-benchmarked investors.**

Over time, less well-informed investors can be expected to earn lower returns than non-benchmarked investors.

4. "Institutional Investors and Information Acquisition: Implications for Asset Prices and Informational Efficiency", Breugem, Buss, April 2018.

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How did the researchers reach these conclusions?

Breugem and Buss use a theoretical, rather than an empirical model to reach their conclusions.

They develop an extension of financial theory to account for the growing role of passive funds.

In their research paper, "Institutional Investors and Information Acquisition: Implications for Asset Prices and Informational Efficiency", Breugem and Buss extend a classical financial theory, the Capital Asset Pricing Model (CAPM), to account for the growing role of passive funds.

CAPM says that the equilibrium between supply and demand for asset prices is established thanks to the link between risk and return: investors need to receive extra compensation for deploying money over time and for taking on additional risk (volatility).

One central assumption of CAPM is that all investors are equally informed. But this is a simplification of reality.

For traditional active managers, the added value to beat the market is generated through the search for information. But investors in passive funds are less involved in a search for information, as they no longer want to beat the market: they are only seeking to replicate their benchmark.

Therefore, a new equilibrium model is needed to understand the impact of those different types of investment vehicle on financial price equilibrium, and on asset managers' performance.

In developing the model, the researchers first assume that investors are divided into two categories: benchmarked (those tracking an index or following it closely) and non-benchmarked.

They then argue that a greater role for benchmarking reduces the number of shares whose prices are sensitive to the release of new information. And they also state that more benchmarking reduces investors' overall willingness to seek outperformance.

Both effects imply a decline in the value of market-sensitive information. Put another way, as benchmarking takes a greater market share, informational efficiency declines. As a result, the researchers argue, return volatility increases and share prices may move to a lower equilibrium level.

Considered together, these effects should lead to greater opportunities for active asset managers.

To understand the impact of the growing role of passive, an extension of financial theory was needed.

At some point, the increasing use of passive funds could create extra opportunities for active managers.

LYXOR'S VIEW: WHAT CONCLUSIONS CAN WE DRAW FROM THE RESEARCH?

The research paper from Breugem and Buss provides evidence that, at some point, the increasing use of passive funds could create extra opportunities for active managers. This could then help active managers to improve their performance and, in turn, to increase the fund flows they attract.

It follows that there is a (theoretical) equilibrium market share for active and passive fund managers. However, the researchers do not seek to calibrate this market share level.

It is possible that passive funds' market share could grow substantially further before active managers are able to exploit the informational inefficiencies necessary to generate above-benchmark performance.

The research of Breugem and Buss helps address a criticism sometimes addressed at passive funds.

Certain critics allege that index-tracking funds cause a misallocation of capital because they invest in stocks without regard to price[5].

However, Breugem and Buss suggest that such effects, if they did arise, would be corrected automatically. This is because a growing market share for passive funds would create extra opportunities for active managers, helping bring prices back towards fair value.

5. See, for example, "Passive investing is storing up trouble", Megan Greene, Financial Times, August 2 2018.

Q3: What is Lyxor's view on the evolution of competition between active and passive?

An optimal split between active and passive should be found as both management styles play a distinct role in portfolios.

Based on the findings of our researchers we believe there is an indeed an optimal split between active and passive management, and that the market will find it naturally over time. And, contrary to the hype, the inexorable rise of passive isn't, in fact, sounding the death knell for active managers.

Overall, in combination, the two research papers sponsored by the 2018 Lyxor Dauphine Research Academy imply that the asset management market will stabilise at an equilibrium market share of active and passive funds.

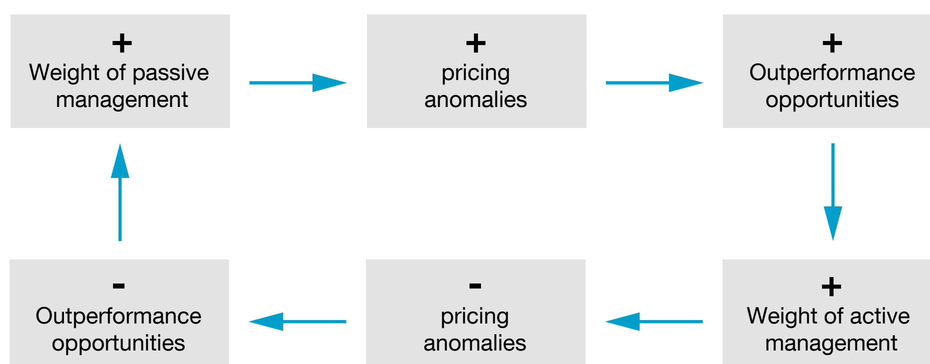
The more investors move toward passive strategies, the more active managers should be able to outperform and therefore attract inflows, until the point where they can no longer outperform (because their informational advantage wanes) and flows move back into passive funds.

This means active and passive strategies should naturally find their optimal level in terms of assets. However, investors' ability to choose between active and passive will increase competition between the two, rather than destroying one or the other of them. The increased availability of passive strategies will also enable investors to better assess the performance of active managers, as well as creating some outperformance opportunities for the managers themselves.

Based on the new equilibrium model, as summarized below, the weight of passive will never equal 100% as the market will find an equilibrium weight between the two management styles. Both will take a distinct share in the market as they both have a role to play in investors' portfolio construction.

> Investors' ability to choose between active and passive will increase competition between the two, rather than destroying one or the other of them.

Market theoretical equilibrium active and passive management



Source: Lyxor, based on the research of Breugem & Buss (2017) and Cao, Hsu, Xiao, Zhan (2017).

> The market will find an equilibrium weight between the two management styles.

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Lyxor ETF

Lyxor has been running ETFs since 2001, longer than any other European provider. Our pioneering spirit helped shape the market as you know it today. Over the last 15 years, we've become one of Europe's largest1, most liquid ETF managers[2]. And we've built one of its most far-reaching ranges, which spans all asset classes, and includes some of the largest and most efficient ETFs[3].

We now offer more than 220 ways to explore the markets. So, whether you're seeking essential core index exposure, or reaching out for more tactical opportunities in specific sectors or markets, we have a product to match. Staying true to our pioneering heritage, We've been breaking new ground in smart beta since 2007 and now rank third for assets1.

We know choice alone isn't enough. So wherever you roam, you can be sure our quality charter sets standards of management few other providers can match.

(1) Source: Lyxor International Asset Management. Data refers to Assets Under Management. Data correct as of Oct, 2017.
(2) Source: Lyxor International Asset Management. Data observed between December 2015 and December 2016.
(3) Source: Lyxor International Asset Management. Data observed between January 2015 and December 2016.

What's about the Lyxor/ Dauphine Research Academy

LYXOR DAUPHINE RESEARCH ACADEMY
FOUNDED BY DAUPHINE & LYXOR

The idea for the Research Academy originally came about because of the lack of regular, high-quality academic research on passive management, especially in comparison with that produced on the active management segment.
It was necessary to carry out in-depth analyses and hold discussions to tackle some of the issues facing the market, especially those linked to the world of ETFs and, ultimately, to provide some answers addressing investors' needs.

At Lyxor, we have a strong culture of innovation and a solid financial engineering track record. As one of the leaders within the European ETF market, it was only natural for Lyxor to get involved in these discussions, at the juncture between academic research and genuine investor concerns.

That's why in 2015 we created the Research Academy in partnership with the Paris-Dauphine University's House of Finance. We wanted to encourage top international researchers from the most renowned universities to work on subjects related to passive management. Since then, the Academy's subjects have been extended to cover broader topics surrounding portfolio construction.

The Academy's objective is to promote high-quality academic research on issues associated with changes in asset management. The idea behind the initiative was to establish links between universities and the asset management industry to provide concrete academic answers and offer a perspective on some of the real issues that investors face.

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