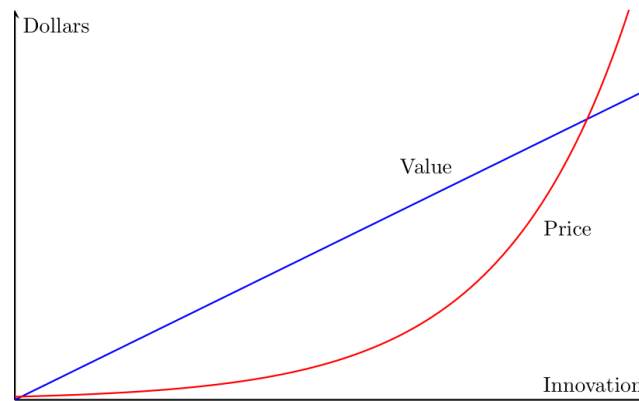


The Changing Price-Value Disparity

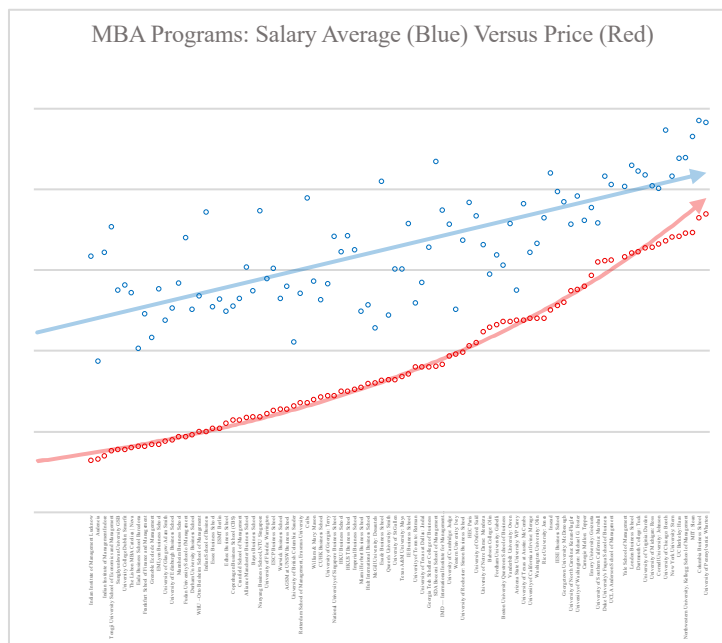
Michael Quintin, (9/9/25)



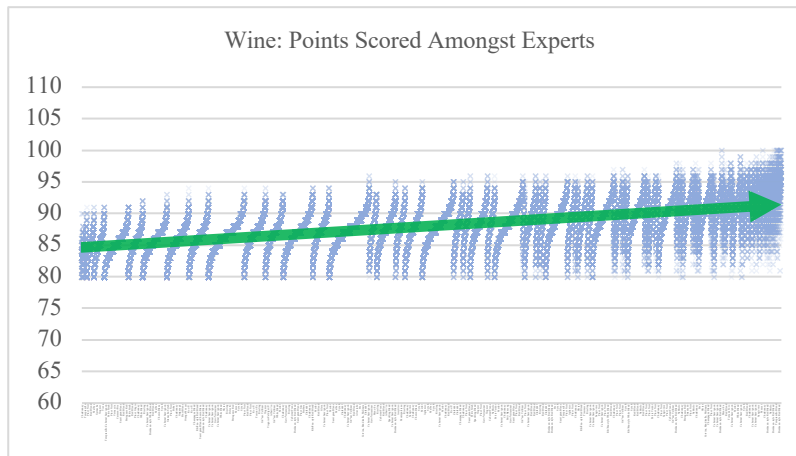
Business has served as the primary vehicle by which economic growth manifests as substantive value provided to customers. Businesses trade value, in the form of goods or services, for a given quantity of money: a price. However, value and price do not always match, and do not change at the same rate; indeed, as numerous case studies show, the more a business linearly increases its provided value, the more it is able to exponentially increase its charged price. This paper will attempt to prove and explain the reason behind this relationship.

It's easy to analyze price changes, since price is measured quantitatively. However, the value of a given product, in most cases, is quite hard to quantify. The few cases where value can be quantified lie mainly where the product is designed to benefit the consumer's *performance* in some way, like a training program or business consultation. Essentially, the product functions like an investment, and measuring its value is as simple as measuring its ROI. Looking at products like these, we discover a changing price-value disparity.

MBA programs are a classic self-investment product, as they are focused on giving students value in the form of (eventual) jobs or career prospects otherwise. As visible in figure 1, as the ROI of these programs increases approximately linearly, the price of these programs increases approximately exponentially.



However, not only do investment-based products follow the changing price-value disparity, but typical consumer products, when their individual value is each quantified, also do too. While such quantification is more challenging than investment-based products, there are certain ways to quantify



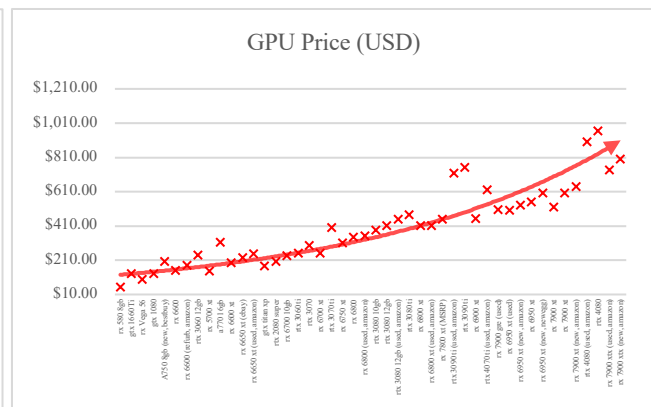
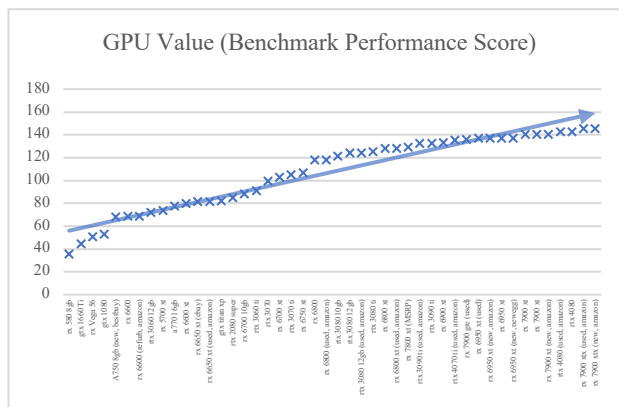
the value of more general goods. Wine, for example, is a good that increases in value in a roughly linear manner, while increasing in price exponentially. Looking at a graph of over 220,000 wines, we see that for there is roughly linear increase in value (measured by the point score experts gave each wine. However, looking at a graph of

those same wines' prices, we see an obviously exponential trend. It's almost ridiculous how exponential prices are compared to value, and seeing this trend does not require a guiding trendline at all. Wines are another rough proof of the concept that as value increases linearly, price is able to increase exponentially.

While wine may only be roughly quantifiable with expert opinion, technology products provide an opportunity for extremely precise value denomination. The value of a GPU, for example, can easily be measured



by looking at its performance under standardized benchmarks. The linearity of value increase compared to the exponentiality of price increase is also visible in this case — in fact, value seems to almost decrease exponentially, levelling off near the end and increasing significantly at the start.



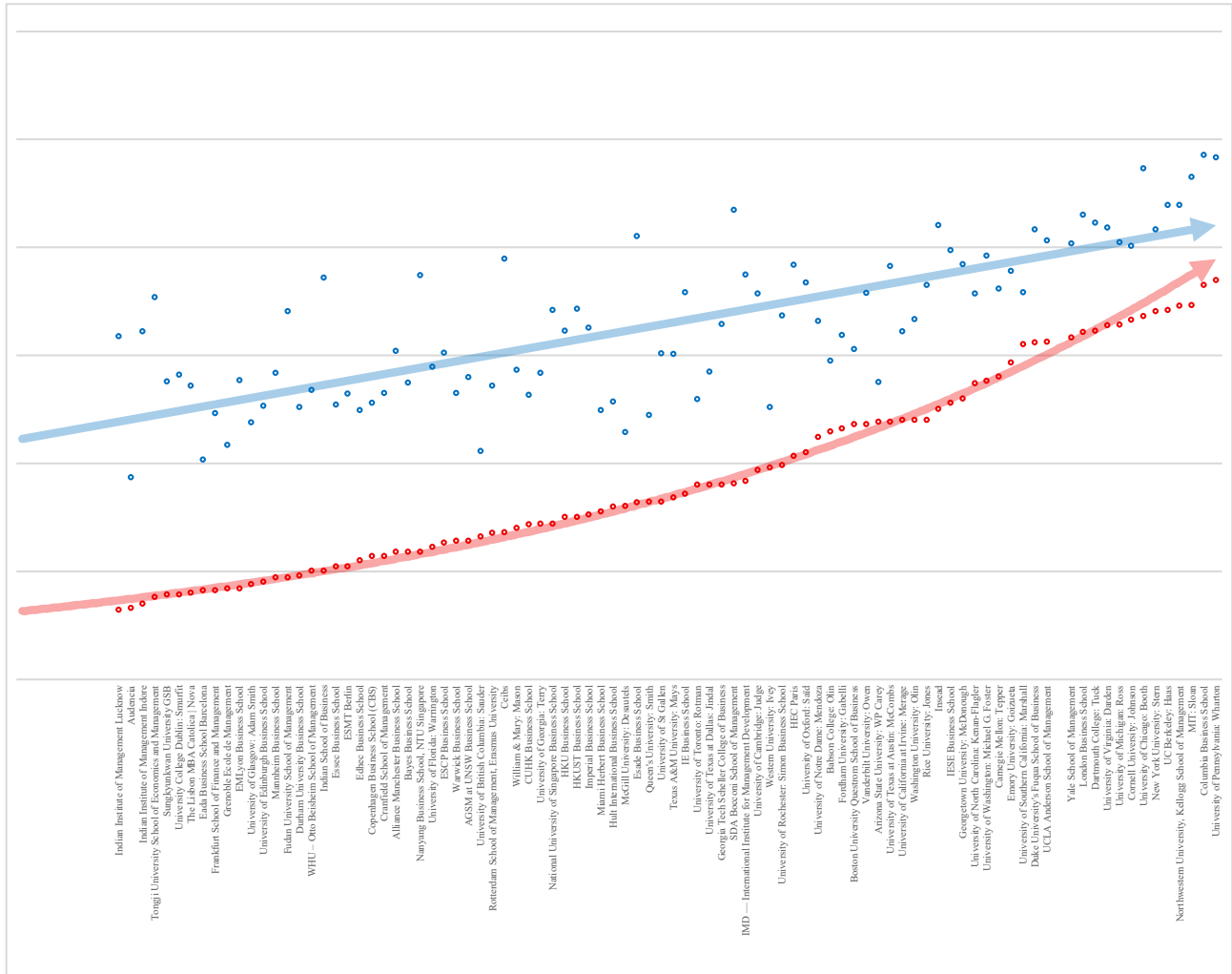
To understand why the changing price-value disparity may exist, we must reflect on the mechanisms of value in the first place. If a business provides greater value than its competitors, it has taken extra effort to develop a product that serves its customers more satisfyingly and/or efficiently.

First, this effort is inherently differentiating, slimming down the pool of competitors by eliminating those who simply won't put in the work. If a firm outperforms its competition enough, it can effectively function like a monopoly — temporarily, of course, since its competition will catch up — able to take advantage of the unique value proposition it poses to charge a much higher price. The more a company maximizes the value it provides to customers, the more it niches itself away from its competition, and the more it is thus able to raise its prices. Secondly, an increased value proposition not only creates monopoly in the competition space alone, but in the branding space as well: customers buying highly valuable products, especially ones that are uniquely valuable, are likely to grow attached to the product from the perceived generosity of the initial unique extra value they receive, and are thus more loyal to the product even as competition catches up.

Overall, the changing price-value disparity is a shining piece of motivation for businesses to find new ways to serve their customers better. By providing more value than the competition, businesses are able to niche themselves into value proposition monopolies, and create brand loyalty for their customers through the good will of their unique (and seemingly generous) value proposition. These two factors allow businesses to charge exponentially higher prices, with an exponential rate of price increase versus a linear rate of value increase.

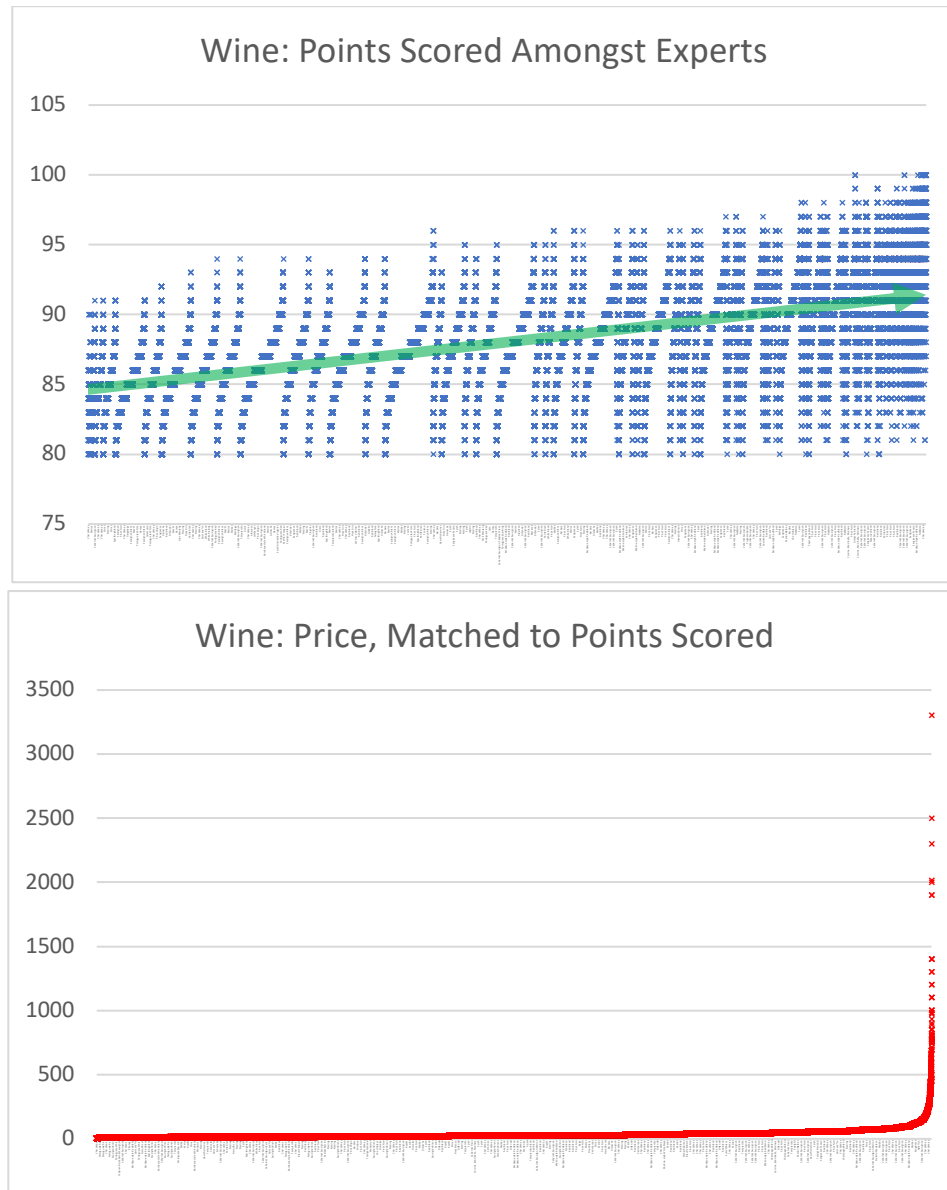
Figures used:

Figure 1 – MBA programs, salary expectation (blue) versus price (red)



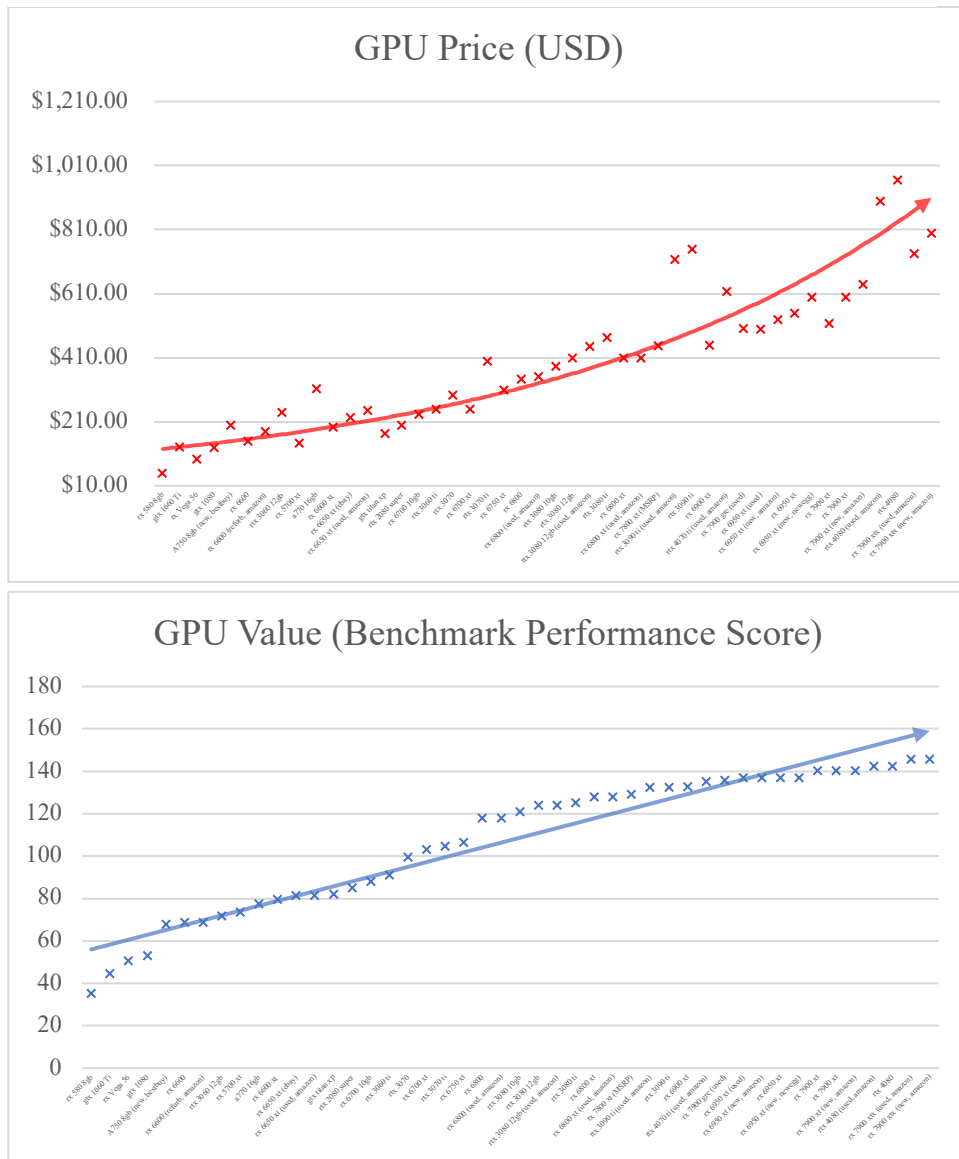
| Expected Salary | Tuition Total | MBA Program Name | 135746 | 67750 | Rotterdam School of Management, Erasmus University | 178835 | 118000 | Vanderbilt University: Owen |
|-----------------|---------------|--|--------|--------|--|--------|--------|---|
| 158607 | 32000 | Indian Institute of Management Lucknow | 194589 | 68000 | Ceibs | 137606 | 119000 | Arizona State University: WP Carey |
| 93479 | 33000 | Audencia | 143123 | 69800 | William & Mary: Mason | 191104 | 119000 | University of Texas at Austin: McCombs |
| 161012 | 35000 | Indian Institute of Management Indore | 131605 | 71500 | CUHK Business School | 160861 | 120000 | University of California at Irvine: Merage |
| 176726 | 38000 | Tongji University School of Economics and Management | 141733 | 72000 | University of Georgia: Terry | 166584 | 120000 | Washington University: Olin |
| 137615 | 39000 | Sungkyunkwan University GSB | 170898 | 72000 | National University of Singapore Business School | 182324 | 120000 | Rice University: Jones |
| 140828 | 39000 | University College Dublin: Smurfit | 161328 | 75000 | HKU Business School | 209992 | 125129 | Insead |
| 135825 | 40000 | The Lisbon MBA Católica Nova | 171384 | 75000 | HKUST Business School | 198584 | 127920 | IESE Business School |
| 101700 | 41000 | Eada Business School Barcelona | 162604 | 76158 | Imperial Business School | 192142 | 129888 | Georgetown University: McDonough |
| 122999 | 41000 | Frankfurt School of Finance and Management | 124458 | 77500 | Miami Herbert Business School | 178319 | 137000 | University of North Carolina: Kenan-Flagler |
| 108422 | 42000 | Grenoble Ecole de Management | 128359 | 79800 | Hult International Business School | 195893 | 138000 | University of Washington: Michael G. Foster |
| 138442 | 42000 | EM Lyon Business School | 114305 | 80000 | McGill University: Desautels | 180857 | 140000 | Carnegie Mellon: Tepper |
| 118767 | 44000 | University of Glasgow: Adam Smith | 205044 | 81896 | Esade Business School | 188815 | 146500 | Emory University: Goizueta |
| 126586 | 45000 | University of Edinburgh Business School | 122154 | 82000 | Queen's University: Smith | 179095 | 155000 | University of Southern California: Marshall |
| 141825 | 47000 | Mannheim Business School | 150732 | 82000 | University of St Gallen | 208261 | 155850 | Duke University's Fuqua School of Business |
| 170236 | 47000 | Fudan University School of Management | 150489 | 84000 | Texas A&M University: Mays | 203117 | 156000 | UCLA Anderson School of Management |
| 125769 | 48000 | Durham University Business School | 178898 | 85800 | IE Business School | 201752 | 158000 | Yale School of Management |
| 133859 | 50000 | WHU - Otto Beisheim School of Management | 129690 | 90000 | University of Toronto: Rotman | 214823 | 160638 | London Business School |
| 185885 | 50000 | Indian School of Business | 142408 | 90000 | Georgia Tech Scheller College of Business | 211135 | 161240 | Dartmouth College: Tuck |
| 127104 | 52000 | Essec Business School | 164271 | 90000 | University of Texas at Dallas: Jindal | 208964 | 163880 | University of Virginia: Darden |
| 132103 | 52163 | ESMT Berlin | 217241 | 90500 | SDA Bocconi School of Management | 202264 | 164000 | University of Michigan: Ross |
| 124597 | 55000 | Edhec Business School | 187277 | 91788 | IMD - International Institute for Management Development | 200517 | 166200 | Cornell University: Johnson |
| 127842 | 57000 | Copenhagen Business School (CBS) | 178575 | 96890 | University of Cambridge: Judge | 236474 | 168000 | University of Chicago: Booth |
| 132305 | 57000 | Cranfield School of Management | 125788 | 98000 | Western University: Ivey | 208236 | 170380 | New York University: Stern |
| 151826 | 58852 | Alliance Manchester Business School | 168298 | 99000 | University of Rochester: Simon Business School | 219388 | 170800 | UC Berkeley: Haas |
| 137128 | 59000 | Bayes Business School | 191828 | 103283 | HEC Paris | 219487 | 172740 | Northwestern University, Kellogg School of Management |
| 186832 | 59000 | Nanyang Business School, NTU Singapore | 183520 | 104900 | University of Oxford: Saïd | 232565 | 173060 | MIT: Sloan |
| 144517 | 61260 | University of Florida: Warrington | 165725 | 112000 | University of Notre Dame: Mendoza | 242747 | 182344 | Columbia Business School |
| 151045 | 63000 | ESCP Business School | 147292 | 114572 | Babson College: Olin | 241522 | 184560 | University of Pennsylvania: Wharton |
| 132522 | 64000 | Warwick Business School | 159200 | 116000 | Fordham University: Gabelli | | | |
| 139766 | 64000 | AGSM at UNSW Business School | 152868 | 118000 | Boston University Questrom School of Business | | | |
| 105593 | 66000 | University of British Columbia: Sauder | | | | | | |

Figure 2 – wine, scored by experts (blue), versus price (red)



Data table not provided: 220,000 wines are listed.

Figure 3 – GPUs, price versus benchmark performance scores



| GPU | Price (USD) | Score |
|---------------------------|-------------|-------|
| rx 580 8gb | \$ 50.00 | 35.3 |
| gtx 1660 Ti | \$ 132.00 | 44.6 |
| rx Vega 56 | \$ 95.00 | 50.6 |
| gtx 1080 | \$ 130.00 | 53.1 |
| A750 8gb (new, bestbuy) | \$ 200.00 | 68 |
| rx 6600 | \$ 150.00 | 68.8 |
| rx 6600 (refurb, amazon) | \$ 180.00 | 68.8 |
| rtx 3060 12gb | \$ 240.00 | 71.8 |
| rx 5700 xt | \$ 145.00 | 73.7 |
| a770 16gb | \$ 315.00 | 77.6 |
| rx 6600 xt | \$ 195.00 | 79.6 |
| rx 6650 xt (ebay) | \$ 225.00 | 81.4 |
| rx 6650 xt (used, amazon) | \$ 246.00 | 81.4 |
| gtx titan xp | \$ 175.00 | 82 |
| rtx 2080 super | \$ 200.00 | 85 |
| rx 6700 10gb | \$ 235.00 | 88.3 |
| rtx 3060 ti | \$ 250.00 | 91.2 |
| rtx 3070 | \$ 295.00 | 99.6 |
| rx 6700 xt | \$ 250.00 | 103.1 |
| rtx 3070 ti | \$ 400.00 | 104.8 |
| rx 6750 xt | \$ 310.00 | 106.5 |
| rx 6800 | \$ 345.00 | 118 |
| rx 6800 (used, amazon) | \$ 352.00 | 118 |

| | | |
|------------------------------|-----------|-------|
| rtx 3080 10gb | \$ 385.00 | 121.1 |
| rtx 3080 12gb | \$ 410.00 | 124 |
| rtx 3080 12gb (used, amazon) | \$ 446.00 | 124 |
| rtx 3080 ti | \$ 475.00 | 125.3 |
| rx 6800 xt | \$ 410.00 | 128.1 |
| rx 6800 xt (used, amazon) | \$ 410.00 | 128.1 |
| rx 7800 xt (MSRP) | \$ 449.00 | 129.3 |
| rtx 3090 ti (used, amazon) | \$ 718.00 | 132.6 |
| rtx 3090 ti | \$ 750.00 | 132.6 |
| rx 6900 xt | \$ 450.00 | 132.9 |
| rtx 4070 ti (used, amazon) | \$ 618.00 | 135.2 |
| rx 7900 gre (used) | \$ 502.00 | 135.8 |
| rx 6950 xt (used) | \$ 500.00 | 137 |
| rx 6950 xt (new, amazon) | \$ 530.00 | 137 |
| rx 6950 xt | \$ 550.00 | 137 |
| rx 6950 xt (new, newegg) | \$ 600.00 | 137 |
| rx 7900 xt | \$ 519.00 | 140.3 |
| rx 7900 xt | \$ 600.00 | 140.3 |
| rx 7900 xt (new, amazon) | \$ 640.00 | 140.3 |
| rtx 4080 (used, amazon) | \$ 899.00 | 142.5 |
| rtx 4080 | \$ 965.00 | 142.5 |
| rx 7900 xtx (used, amazon) | \$ 736.00 | 145.7 |
| rx 7900 xtx (new, amazon) | \$ 800.00 | 145.7 |